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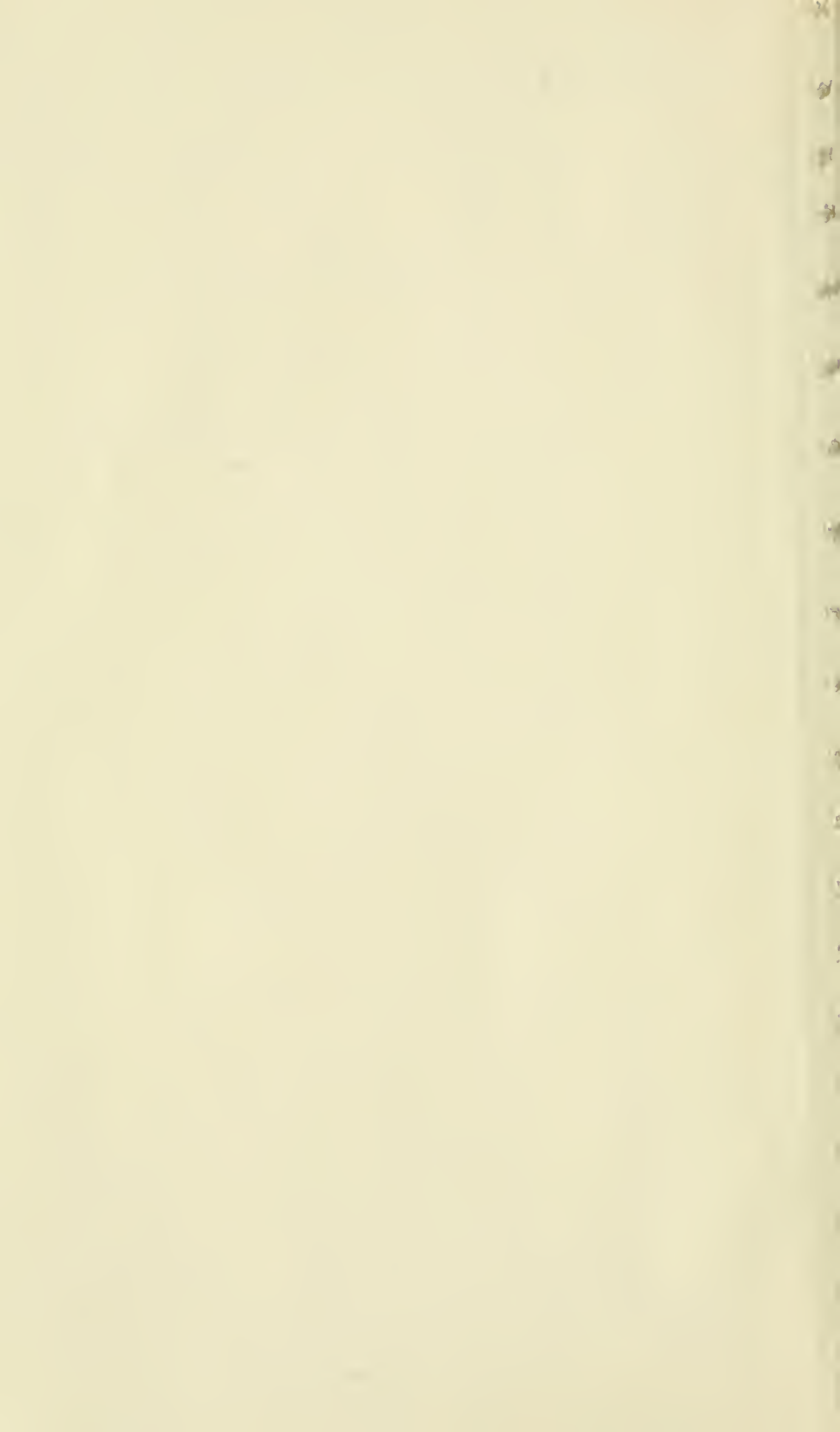
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WAR DEPARTMENT : : OFFICE OF THE CHIEF OF STAFF  
WAR COLLEGE DIVISION, GENERAL STAFF, No. 22

STRENGTH AND ORGANIZATION  
OF THE ARMIES OF  
FRANCE, GERMANY, AUSTRIA, RUSSIA,  
ENGLAND, ITALY, MEXICO,  
AND JAPAN

(SHOWING CONDITIONS IN JULY, 1914)

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WAR DEPARTMENT,  
OFFICE OF THE CHIEF OF STAFF,  
*Washington, January 14, 1916.*

The following revision of General Staff Document No. 17, showing at a date as close as practicable to the outbreak of the war in Europe, July, 1914, the strength and organization of the armies of France, Germany, Austria, Russia, England, Italy, Mexico, and Japan, is published for the information of the Regular Army and the Organized Militia of the United States.

By order of the Secretary of War:

H. L. SCOTT,  
*Major General, Chief of Staff.*



## INTRODUCTION.

A great many authorities have been consulted in the preparation of the data, and it is believed that the figures are accurate as far as the data go. The great military powers have been increasing their resources since 1911 to an unknown extent, and at mobilization they had at their disposal much larger armies than would be indicated by the figures given in this study.

As no reliable data have been made public, no accurate estimate can be given of the real fighting force of these nations as it existed at the outbreak of the war.

It will be noted that all the data obtained have been summed up in tables which immediately follow this introduction. It should be borne in mind, however, that the separate studies on the several countries should be carefully considered before drawing conclusions from the tables. Before introducing the tables it seems desirable to formulate a few general facts on the organization of foreign armies, as too much insistence can not be laid on the fact that a bare inspection of the tables is liable to lead to false conclusions.

Classifying the general remarks on organization under appropriate headings we have—

### INFANTRY.

The real basis of the infantry organization of all foreign armies is the battalion. The typical battalion is composed of 4 companies and has a strength on the war footing of some 20 to 25 officers and 900 to 1,100 men, counting from about 900 to 1,000 rifles.

In speaking of a foreign battalion it must, therefore, be borne in mind that its fighting strength is greater than that of our battalion.

### CAVALRY.

The basis of all foreign cavalry organization is the squadron. The foreign squadron numbers on a war footing from 120 to 150 sabers. Regiments contain from 3 to 6 squadrons.

It will therefore be noted that in speaking of a foreign squadron we mean a force of about one-half the strength of the United States squadron. Similarly, the cavalry regiment of foreign services is about one-half, or less, the strength of our regiments.

### FIELD ARTILLERY.

The battery is usually taken as the unit of field artillery organization. For the purposes of comparison a more correct unit is the battalion.

Leaving Russia aside, it may be said that there are two great systems of field artillery organization. These may be called, naming

them after their great exponents, the French and the German. The essential differences between these two systems may be summarized as follows:

The French system takes 4 guns as the firing unit, the battery, and assigns all of the ammunition which should be available *upon entry into action* to the battery; batteries count 5 officers, sometimes 4, and 170 men. •

Under the German system the firing unit, battery, counts 6 guns, and only so much ammunition as is needed for the *immediate* service of the pieces is assigned to the batteries; the remainder of the ammunition which should be available *upon entry into action* being assembled in an ammunition battery (light ammunition column), which forms an *integral* part of the battalion.

In both systems the number of firing batteries in the battalion is three, the German system having an additional battery for ammunition gives that system 4 battery organizations to the battalion.

Under the German system the strength of firing batteries is about 5 officers and 150 men and that of ammunition batteries is 4 officers and 188 men. The strength of battalion staffs is not dependent upon the particular system.

Leaving aside battalion staffs it will be noted that under the French system the battalion counts about 15 officers, 510 men, and 12 guns, whereas under the German system it counts 19 officers, 638 men, and 18 guns. It is thus apparent that under the French system the battalion has  $1\frac{1}{4}$  officers and  $42\frac{1}{2}$  men per gun, while the German system allows  $1\frac{1}{8}$  officers and  $35\frac{4}{5}$  men per gun. If the strength of the ammunition columns of the army corps be considered it will be found that the slight differences in the number of officers and men required per gun under the two systems practically vanish.

The advantages and disadvantages of the two systems as set forth by the adherents of one or the other are too well known to make it necessary to repeat them here. Moreover, the arguments of those who have really studied the question have but little weight with their opponents who have equally given it serious consideration. The Russian system is obsolete, but is considered in the special study on that country.

#### FORTRESS ARTILLERY.

In most foreign services all artillery is on one list. That branch of artillery known as fortress artillery has no counterpart in our service. Fortress artillery garrisons the land fortresses of the country and furnishes artillery of various types to the mobile troops. The amount of mobile artillery which would be provided by the foot artillery in war is naturally dependent upon the character of the war, whether offensive or defensive, etc. It is, therefore, impossible to say by how much the artillery with the mobile troops, as shown in the tables, would be augmented in war.

## COAST ARTILLERY.

The coast artillery shown for Germany does not give a correct idea, for many of the coast fortifications of that country are garrisoned by marines.

## SANITARY TROOPS.

While the number of sanitary troops shown by the tables is small for foreign armies as compared with the number maintained by the United States, it should be borne in mind that in war much of the "bearer and first-aid duty" is performed in foreign services by men drawn from and forming part of the line. Furthermore, drivers for ambulances and for other nontechnical purposes are drawn from the train. The necessity for maintaining a nucleus in peace for expansion in war does not therefore exist in the same degree in foreign countries as in the United States. Similar remarks are, however, true for services other than sanitary.

## EXPANSION ON MOBILIZATION.

In all foreign countries of any consequence large numbers of *fully trained* reserves exist. These men are assigned to organizations and in those organizations complete equipment of every kind and description is so stored as to facilitate immediate issue. Every horse in civil life has its place assigned and its owner is warned as to where it is to be turned in on mobilization; the same is true of vehicles. In the formation of certain classes of trains the Government simply directs teamsters with their teams, harness, and wagons to report at previously specified places. It is thus simply a matter of hours for the great powers to mobilize.

Inasmuch as the frontiers of possible enemies adjoin their own, and the functioning of the mobilization of those enemies is equally complete, all nations on the continent of Europe maintain their cavalry and horse artillery at practically war strength and station those arms on the frontiers to secure the few hours which are necessary for mobilization.

It is thus evident that the lessons (obtained by a study of the organization of the armies of those nations which trust to preparation rather than to luck) as to the relative and actual degree of expansion of which the several arms are capable can have but little applicability to the conditions obtaining in the United States.

## CONDITIONS OF SERVICE.

Aside from the features of compulsory service and the consequent existence of large masses of reserves in foreign countries, there are certain conditions of service with reference to daily duties which should be borne in mind in applying principles of foreign organiza-

tion to conditions as they actually exist in the United States. In all foreign services the efficiency of peace training with respect to its effect in war is the sole object in view. But the real point is that this is put into practice and does not savor of a mere theory. Everything is, in foreign services, subordinated with absolute rigor to the tactical training of troops and the preparation by various departments and services for war. Organizations, departments, and services, as well as individuals, are judged solely from the standpoint of their preparation to pass at once to a condition of war.

Fatigue duties, guard, paper work, and kindred duties of the kind common in the United States service are, in foreign states of importance, either absolutely unknown or exist in such minor degree as to be infinitesimal. Special duties, such as officers and men for various schools, detached service of all kinds, mobilization, command and training of territorial and reserve forces, information duty, etc., are performed by officers and men who are additional to those serving with organizations. Moreover, the headquarters of such organizations have the men and officers they need as part of the headquarters of the units; accordingly company units are not drained for clerks, messengers, laborers, etc.

The absence of fatigue duties and the other facts above stated result in a condition which can hardly be appreciated in the United States, namely: If a company unit is, under the budget, entitled to 4 officers and 100 men, it has that number for daily duty. The point of this condition is apparent.

The tables showing principal data and the detailed studies are appended in the order named.

The forces of the United States have been included in the tables to facilitate comparison.

*Table showing higher organization existing in time of peace.*

[No militia, reserve, or territorial troops are included.]

Country.	Army corps.	Divisions.	Cavalry divisions.	Infantry brigades.	Cavalry brigades.	Field artillery <sup>1</sup> brigades. <sup>2</sup>
France.....	21	47	10	92	38	21
Germany.....	25	50	1	112	69	50
Austria <sup>3</sup> .....	16	33	8	58	19	19
Russia.....	37	76	27	160	61	61
England <sup>4</sup> .....	0	6	1	18	4	26
Italy.....	12	25	3	51	8	20
Mexico.....	0	0	0	0	0	0
Japan.....	0	21	0	43	4	3
United States.....	0	3	1	8	4	0

<sup>1</sup> Army corps, divisions, and brigades differ in organization and in number of men and guns. Per army corps the minimum number of guns is as follows: France, 144; Germany, 160; Austria, 180; Russia, 108; England, 144; Italy, 104; Japan, 108 (for comparison only—Japan has no army corps, 36 guns to a division), not including the heavy artillery.

<sup>2</sup> The number of guns to a field artillery brigade differ widely in the different armies.

<sup>3</sup> Common army only.

<sup>4</sup> Figures are for regulars in the British Isles only. In addition, there are 14 divisions, 42 infantry brigades, 14 field artillery brigades, and 14 mounted brigades of territorial troops in the British Isles. In India there are 9 divisions, 9 field artillery brigades, and 8 cavalry brigades.



Table showing peace strength by arms of the service.

[Only officers and men with colors are considered.]

Country.	Infantry.	Cavalry.	Field artillery.	Foot artillery.	Coast artillery.	Technical troops.	Train.	Sanitary.	Total peace strength.
France <sup>1</sup> .....	509,456	81,556	118,302	4,446	7,246	27,866	11,202	6,123	818,532
Germany.....	507,231	85,792	91,368	38,357	(?)	30,403	12,600	6,615	806,016
Austria <sup>2</sup> .....	196,957	47,151	37,069	9,934	(?)	12,994	4,914	2,933	370,725
Russia.....	815,000	138,000	153,792	18,056	14,152	<sup>3</sup> 37,448	(?)	(?)	1,284,000
England <sup>4</sup> .....	151,261	20,716	34,694	628	14,965	9,096	6,772	5,069	255,438
Italy <sup>5</sup> .....	193,514	27,410	41,493	7,000	5,000	15,836	5,940	5,666	305,033
Mexico.....	20,326	7,318	1,912	(?)	(?)	657	215	(?)	32,000
Japan <sup>6</sup> .....	149,402	14,585	18,918	6,899		16,727	11,427	3,484	250,000
United States <sup>7</sup> .....	37,500	14,913	5,787	0	19,734	11,199	0	4,620	92,081

<sup>1</sup> Includes troops stationed in Algiers and Tunis, and such colonial troops as are stationed in France. Budget estimates of 1914. Budget estimates metropolitan army, 1914, 736,000.

<sup>2</sup> Common army only. For Landwehr, see study on Austria.

<sup>3</sup> Includes miscellaneous organizations, staffs, school detachments, etc.

<sup>4</sup> Regular army only. Indian army, colonial forces, and territorial forces are mentioned in study on England. Territorial force, British Isles, numbers 315,408. Canadian permanent force and organized militia numbers 81,797.

<sup>5</sup> Exclusive of troops in Africa.

<sup>6</sup> Japan does not publish its peace strength.

<sup>7</sup> Based on Army List, Oct. 20, 1915. The Porto Rico Regiment is counted as infantry. Technical troops include Engineers, Ordnance, Signal Corps, and the 6,000 enlisted men of the Quartermaster Corps. Includes 6,098 recruits. 5,000 Philippine Scouts not counted. Enlisted men of the Medical Department (Hospital Corps) (4,012), and enlisted men of the Quartermaster Corps are, under the law, not to be counted as part of the strength of the Army.

The following table shows the fighting strength in 1911. Since that date, most of the great powers have increased their initial mobilization strength, but the extent of the increases has not been made public.

Table showing fighting strength of three arms on mobilization.

[Existing organizations only considered.]

Country.	Infantry rifles.	Cavalry sabers.	Field guns.	Sabers per thousand infantry bayonets.	Field guns per thousand infantry bayonets. <sup>1</sup>	Fully trained reserves available for passing from peace to war footing.
France <sup>2</sup> .....	618,450	66,750	2,936	107.93	4.74	2,300,000
Germany.....	633,000	76,500	3,866	120.85	6.10	4,000,000
Austria <sup>3</sup> .....	420,300	37,800	1,854	89.93	4.41	1,600,000
Russia <sup>4</sup> .....	973,152	111,825	4,432	114.91	4.55	3,800,000
England <sup>5</sup> .....	135,020	15,000	1,170	111.09	8.66	215,000
Italy.....	300,000	20,880	1,470	69.99	4.90	1,250,000
Mexico <sup>6</sup> .....	53,760	14,016	176	260.71	3.27	None.
Japan.....	228,000	14,550	954	63.81	4.18	1,000,000
Troops in United States:						
Regulars (1914) <sup>7</sup> .....	36,000	13,068	96	363	2.66	None.
Organized Militia.....	232,000	7,740	260	33	1.01	None.
Total.....	268,000	20,808	356	77.6	1.34	None.

<sup>1</sup> Since the beginning of the present war in Europe the total number of guns has been greatly increased, also the percentage of guns per thousand men, not only by adding new guns but by employing guns that had been considered obsolete for many years.

<sup>2</sup> For all existing units for mobilization in France, see separate study.

<sup>3</sup> Common army only. Figures are approximate. (See study.)

<sup>4</sup> The peculiar situation of Russia makes it impossible for her to assemble her total force upon any one theater of war.

<sup>5</sup> Regulars only. For territorial forces, extra reserves, etc., see study.

<sup>6</sup> Total strength in ranks considered. The deductions which should be made for noncombatants are not accurately known. Laws for compulsory service exist and might be put into effect in war.

<sup>7</sup> This assumes that organizations can be raised to war strength. No trained men available for this purpose.

NOTE.—For probable initial mobilization, see studies on several countries.

The plan on page 11 shows the above graphically.

The outline drawings on pages 12, 13, and 14 give an additional graphical representation of the war strength of the several countries, considering existing *regular* organizations only. In the figures the areas are proportional to the actual war strength of the several arms.

As a matter of fact the figures for the United States are too large, for the reason that trained men are not available for passing to the war footing which the drawings represent.

NOTE.—Due to an error; the figure on page 13 representing the Italian cavalry is too large. It should be about midway between its actual size and that for Japan.

*Peace strength of the Organized Militia and Regular Army and Militia of the United States.*

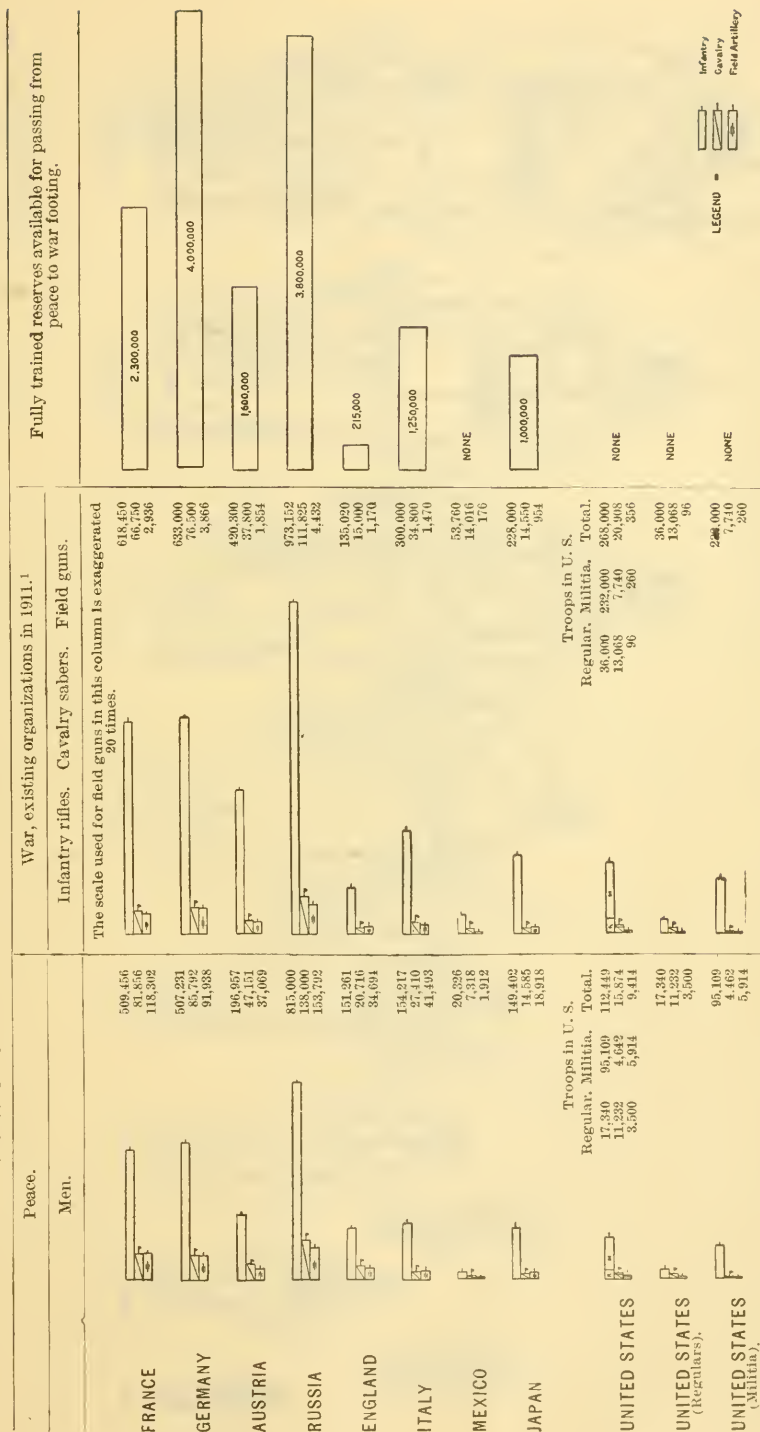
	Organized Militia.	Regular Army and Militia.
Infantry.....	101,437	138,937
Cavalry.....	4,940	19,853
Field artillery.....	6,228	12,015
Foot artillery.....	0	0
Coast artillery.....	7,680	27,414
Technical troops.....	3,275	14,474
Train.....	0	0
Sanitary.....	4,339	9,059
Total peace strength.....	128,043	220,124

*Table showing percentages of several arms of total peace strength.*

Country.	Infantry.	Cavalry.	Field artillery.	Foot artillery.	Coast artillery.	Technical troops.	Train.	Sanitary troops.	Miscellaneous.
France.....	62.24	9.96	14.45	0.55	0.88	3.44	1.36	0.77	6.35
Germany.....	62.93	10.63	11.33	4.76	(?)	3.77	1.56	.82	4.20
Austria.....	63.17	15.12	11.81	3.18	(?)	4.16	1.58	.91	.07
Russia.....	63.46	10.75	11.98	1.40	1.10	(?)	(?)	(?)	11.31
England.....	59.19	8.11	13.56	.24	5.85	3.56	2.65	1.98	4.86
Italy.....	63.44	8.99	13.60	2.30	1.64	5.19	1.95	1.86	1.03
Mexico.....	63.52	22.86	5.97	(?)	(?)	2.05	.37	(?)	5.23
Japan.....	64.95	6.34	8.22		2.99	7.27	4.96	1.51	3.76
United States:									
Regulars.....	36.73	14.60	5.67	0	19.33	10.97	0	4.53	8.17
Organized Militia.....	79.23	3.85	4.86	0	6.00	2.55	0	3.38	.13
Total.....	60.38	8.33	5.22	0	11.92	6.29	0	3.94	3.92

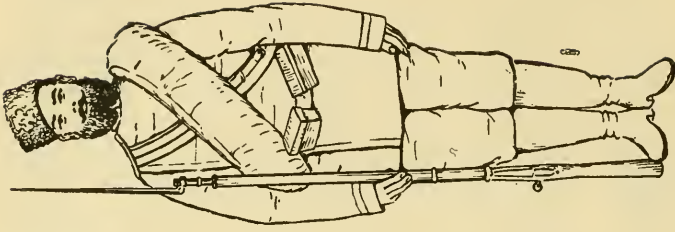


PLAN SHOWING STRENGTH OF THE THREE ARMS IN PEACE AND IN WAR.

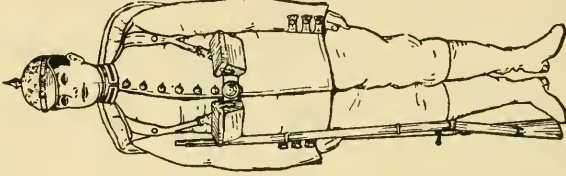


LEGEND = Infantry Cavalry Field Artillery

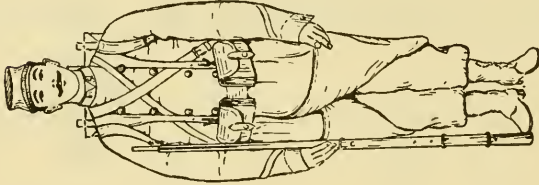
<sup>1</sup> War strengths of great European powers have been increased since 1911, but increases have not been made public. Note.—In this plan only organizations existing in peace have been considered. Nearly all foreign countries have reserve organizations which are about equal in strength to the regular troops. For England the figures are for British regular troops only.



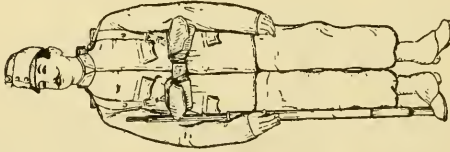
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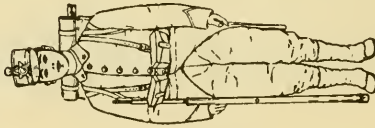
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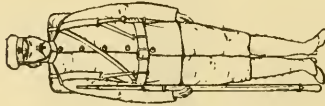
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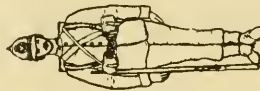
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*C. H. Smith Del.*



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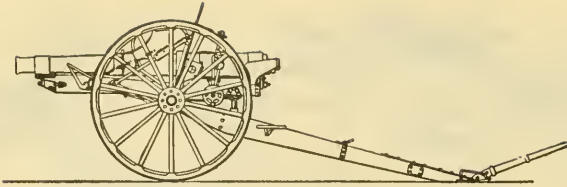


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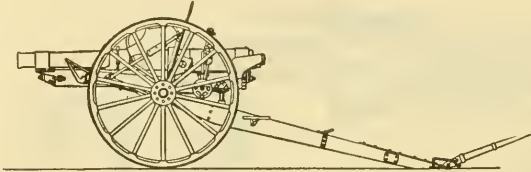


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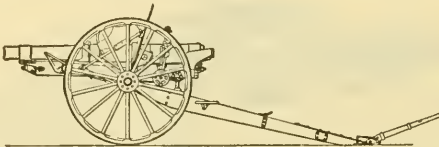
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GENERAL STAFF  
E.H. Smith, Prof.



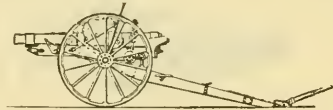
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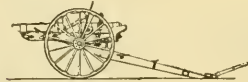
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WAR COLLEGE DIVISION, GENERAL STAFF.  
E. H. Smith, Del.

## FRANCE.

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The French Army proper is known as the Metropolitan Army. This army is divided between France and Algiers. This study will confine itself to the Metropolitan Army with a bare mention of colonial forces.

### HIGHER ORGANIZATION.

There are 20 army corps organized in peace. In addition there is one colonial army corps. Army corps usually have two divisions in peace; in war and in exceptional cases, three. The number of corps troops varies considerably. There are 47 divisions and 92 infantry brigades; 21 field artillery brigades are distributed among the 21 corps.

There are also 10 cavalry divisions organized in peace. As a rule, the cavalry division contains 20 to 24 squadrons and 2 horse batteries.

Two of the divisions depart from this rule by having 30 squadrons each. There is a total of 38 cavalry brigades.

### WAR STRENGTH, 1914.

About 5,500,000 men have had military training (Veltze). This for a war of defense is practically its resources in men.

#### *Peace establishment and approximate war strength.*

	Infantry.	Cavalry.	Artillery.		Other arms and departments.	Total.
			Men.	Guns.		
Peace.....	1 386,338	73,369	97,571	2,720	60,422	2 620,420
War.....	3 2,600,000	430,000	588,000	3,200	260,000	3,878,000

<sup>1</sup> Including gendarmerie, 21,998, and garde républicaine, 2,993.

<sup>2</sup> Peace strength Metropolitan Army, 712,000, including an extra class of about 200,000 men.

<sup>3</sup> Active army, 1,009,000; reserves and depots, 1,600,000; territorial army, 818,000; territorial reserves, 451,000; total (approximate), 3,878,000..

Per cent of peace strength to total population :

Population (in France), census 1911.....	39,601,509
Peace strength .....	792,423
Per cent .....	2
Annual appropriation (1913) .....	\$196,644,875

## INFANTRY.

The battalion usually has 4 companies, sometimes 3, sometimes 5 or 6, or even more. The number of battalions in regiments varies greatly. The maximum is 4 battalions to the regiment. There are 173 regiments.

Figures as to the total number of battalions vary. Taking 173 as a basis and adding battalions not parts of regiments gives 615 battalions: to this must be added 36 battalions of colonial troops stationed in France, making a total of 651 battalions. Von Loebell and Veltze each give 657 battalions. The difference is probably due to the fact that those authorities count native Saharan troops not considered here. As a rule, the infantry company has 3 officers and 125 men in peace.

The total infantry strength in peace is as follows:

	Battalions.	Officers and men.
Stationed in France:		
Metropolitan Army.....	578	318,037
Colonial army.....	36	22,012
Stationed in Algiers and Tunis: Metropolitan Army.....	37	46,289
Total.....	651	1,386,338

<sup>1</sup> With a supposed additional number of about 70,000 men.

## FIELD ARTILLERY.

The French field artillery was reorganized in 1909. The typical formations are:

Batteries to the battalion.....	3	Regiments to the brigade.....	3
Battalions to the regiment.....	4		

One brigade is assigned to each corps; the Sixth and Seventh Corps have brigades of 4 regiments each.

The brigade is divided between corps and divisional artillery—1 regiment to the corps and 1 to each division.

There are 64 regiments and 5 separate battalions, with a total of 689 batteries. To this must be added 3 regiments of colonial artillery stationed in France, with 36 batteries, giving a total of 725 batteries. Batteries have 4 guns each. There are no light-ammunition columns.

The peace strength of batteries varies according to several schedules, viz, 3 officers, 90 men; 3 officers, 100 men; 3 officers, 120 men; 3 officers, 130 men; 3 officers, 160 men. There is a considerable number of men belonging to the regiment not assigned to batteries. In addition, each regiment has a "section of workmen" numbering 17 men. The total numbers of field artillery and the peace distribution are as follows:



	Bat- teries.	Officers and men.
Stationed in France:		
Metropolitan Army.....	670	68,384
Colonial army.....	36	5,350
Stationed in Algiers and Tunis: Metropolitan Army.....	19	2,685
Total.....	725	76,419

It will be noted that the total number of batteries provides about  $34\frac{1}{2}$  batteries per army corps. Various authorities unite in supposing that the *initial mobilization* of France will see for the artillery a similar expansion to that already noted for the infantry (except in a smaller degree), and that the number of batteries for a mobilized corps will be 36. The number of guns per corps will thus be 144—the same as the German corps except for heavy guns.

It is possible that the fortress artillery would mobilize some mobile batteries, but there are no definite data.

The war strength of batteries is 4 officers, possibly 5, and 170 men, except that mountain batteries have 200 men.

Mountain batteries have 6 guns in war.

#### FOOT ARTILLERY.

All officers of artillery, including field artillery, are on one list. Foot artillery is divided into two branches: Coast artillery and fortress artillery. The latter garrisons the land fortifications. It is believed that, in certain cases, a part of the fortress artillery may be used with the mobile forces.

There are in all 11 regiments with 89 batteries in France and 2 battalions with 8 batteries in Algiers and Tunis.

Separating the two branches, we have:

*Fortress artillery.*—There are 47 batteries in France with none in Algiers and Tunis. The peace strength of batteries is 3 officers and 110 men.

The total strength of the fortress artillery is about 4,446 officers and men. The war strength is not definitely known, but is probably double the peace strength.

*Coast artillery.*—There are 42 batteries in France and 8 in Algiers. The peace strength of batteries in France is 3 officers and 110 men: in Algiers and Tunis, 3 officers and 200 men. The total is as follows:

	Bat- teries.	Officers and men.
France.....	42	3,985
Algiers and Tunis.....	8	3,261
Total.....	50	7,246

The war strength of batteries is not definitely known. It may be noted, however, that organizations in Africa are somewhat under war strength, though they are nearer that strength than organizations in France. It is, therefore, safe to say that the average war strength of batteries of coast artillery is at least 3 officers and 200 men.

*Artillery workmen.*—The foot artillery has sections and companies of workmen aggregating 2,321 officers and men. It is not known just how these are divided between the coast and fortress artillery; they are probably about equally divided.

#### CAVALRY.

The typical formations of cavalry are: Five squadrons to the regiment; 2 regiments to the brigade; 2 brigades to the division. The number of brigades and divisions has already been given.

There are 79 regiments in France, 10 in Africa, and also some miscellaneous organizations, 91 in all.

The peace strength of squadrons is 5 officers and 150 men, 141 of whom may be counted as sabers.

It is said that the actual strength is somewhat below the authorized strength.

The total strength and distribution of the cavalry in peace is as follows:

	Squadrons.	Officers and men.
France.....	395	71,956
Algiers and Tunis.....	50	9,600
Total.....	445	81,556

The war strength of squadrons is 5 officers and 160 men, the strength in sabers being about 150. In war one squadron of each regiment is left behind as a depot squadron.

#### TECHNICAL TROOPS.

There is no division, as in the United States, between signal troops and engineers. All technical troops are known as engineers.

There is some question as to the organization of engineers in so far as concerns the numbers of companies and battalions. The budget shows 8 regiments. The number of companies per battalion varies from 3 to 7. The total number of companies is probably 101.

The peace strength of companies varies; the strongest companies number 4 officers and 160 men.



The total strength and its distribution is as follows:

	Officers.	Men.
France.....	504	16,220
Algiers and Tunis.....	31	1,800
Total.....	535	18,020

The war strength of the major portion of engineer companies is 4 officers and 252 men.

#### AVIATION TROOPS.

The aviation troops consist of 8 companies, one of which is of aviators (pilots), and some sections not yet formed. The officers come from the various branches of the service. There are 3 captains, 4 lieutenants, 2 adjudants, 26 sergeants major or quartermaster sergeants, 25 corporals, 5 master mechanics, 5 buglers, 230 men, 136 horses.

#### TRAIN.

The train troops are organized into "squadrons." Each squadron contains 3 companies. There are 20 "squadrons" stationed in France and 12 separate companies in Algiers and Tunis.

The normal peace footing of companies is 4 officers and 87 men.

The total peace strength and its distribution is as follows:

	Officers.	Men.
France.....	360	7,770
Algiers and Tunis.....	45	2,750
Total.....	405	10,520

In war each "squadron" forms additional companies. The total war footing is not accurately known.

#### SANITARY TROOPS.

The authorized peace strength of the medical department is 1,475 officers and 6,123 men.

The budget for 1910, however, only allows 1,462 officers.

The distribution is as follows:

	Officers.	Men.
France.....	952	3,888
Algiers and Tunis.....	510	2,235
Total.....	1,462	6,123

## VETERINARIANS.

The peace footing is 467 officers.

## REMARKS ON TROOPS.

In addition to the organizations noted above there are a great many special organizations, schools, etc.

In addition there are, of course, administrative officers, general staff, etc. There are, for example, 1,345 officers of the intendance, of whom 1,050 are in France.

## TOTAL PEACE STRENGTH.

The total peace strength of the French Army, exclusive of colonial troops but including gendarmes and "republican guards," is as follows:

Officers -----	29, 209
Men -----	735, 088

Total, including everything according to the 1914 budget ----- 818, 532

Of these, 26,368 officers and 709,796 men are stationed in France. There are, in addition, 2,083 officers and 23,573 men of the colonial army stationed in France. This brings the total force stationed in France up to 28,451 officers and 733,307 men. The grand total of the Metropolitan Army and the colonial troops stationed in France is 31,292 officers and 732,528 men, including gendarmes and republican guards. There are, in addition, a great many reserve officers, but the exact numbers are unknown.

## TOTAL WAR STRENGTH.

[Based on 1911 estimates. Increases have not been made public.]

The organization of the maximum mobilization of France can not be given with any degree of accuracy. The sum total of trained men which she is able to mobilize amounts to about 3,800,000 men; possibly a little more.

It is probable that her *initial mobilization* would be devoted to bringing her army corps and cavalry divisions up to the typical formations already mentioned.

This assumption would give a strength of the three arms *in France*, on the *initial mobilization*, of:

Battalions of infantry -----	640	Batteries -----	736
Squadrons of cavalry -----	395		

The fighting strength of the three arms on *initial* mobilization would thus be:

Infantry rifles -----	518,000		Field guns -----	2,944
Cavalry sabers -----	59,250			

The above estimate is a minimum. It is probable that even the *initial* mobilization would see an increase in infantry and artillery over the figures given up to a total of 1,380,000 combatants, including Algerian troops.

#### COLONIAL TROOPS.

Besides the troops already mentioned, there are about 87,000 colonial troops. About 19,500 of these are Europeans and the remainder are natives. These troops are stationed in various colonies, such as Indo-China.

They are organized as follows:

Battalions of infantry -----	59		Squadron of cavalry -----	1
Batteries of artillery -----	31		Companies of engineers -----	3

#### CONDITIONS OF SERVICE.

The Metropolitan Army alone is considered.

✓ Service is compulsory and liability extends from the twentieth to the forty-fifth year of the citizen's age.

Service with the colors is two years for all arms. After serving with the colors, the men pass into the reserve of the active army, in which they serve for 11 years, during which they are subject to two periods of instruction, one for 23 days, the other for 17 days. From the reserve of the active army the men pass to the "territorial army," in which they serve for six years, subject to one period of seven days' instruction. The final service is with the "reserve of the territorial army"; this service is for six years; the men receive no training, but are subject to muster.

#### ADMINISTRATION.

Commander in chief: The President.

Actual commander in chief, by delegation of the President, the minister of war, who is assisted by a military cabinet, a special staff, and a civil cabinet.

There is a superior council of the national defense, that examines all questions of national defense requiring the cooperation of the different ministerial departments.

A superior council of war, charged with all the questions relating to preparation for war.

The General Staff of the Army.

## ORGANIZATION.

The largest permanent unit in time of peace is the army corps, of which France has 21, each corps corresponding to a territorial district from which it is recruited. One of these corps is in Algeria.

## THE ARMY CORPS.

Commanded by a general of division (major general) specially detailed.

1. *Staff*.—Aides (Officers d'ordonnance), 1 chief of staff, 1 sub-chief of staff, general staff officers, officials, interpreters, etc.; total, 14 officers, 66 men (8 cyclists), 62 horses, 10 vehicles.

2. *Services*.—Sanitary director, veterinary, pay, post, telegraph, justice, gendarmerie, escort (1 platoon cavalry), train; total 1 and 2, 54 officers, 340 men (19 cyclists), 240 horses, 44 wagons. Three infantry divisions (one of which a reserve division). One corps cavalry regiment. Artillery, 45 batteries (4 pieces), 180 guns (this includes divisional artillery). One engineer company with corps bridge train; 1 engineer park with mine and telegraph detachment; 1 corps artillery park; 1 headquarters ambulance company; 8 to 12 field hospitals; 1 butchery detachment; 1 administration convoy; 1 assisting convoy; 1 field bakery; 1 live-stock park; 1 mobile remount depot.

Total of corps, 24 to 36 battalions, 8 to 12 squadrons, 144 to 180 guns.

Fighting strength:

Rifles	-----	22, 848-34, 272
Lances	-----	1, 144- 1, 716
Guns	-----	144- 180

## THE INFANTRY DIVISION.

Commanded by a general of division (major general).

*Staff*.—Aides: general staff; interpreters, officials, etc.

*Services*.—Artillery, infantry, sanitary, pay, post, justice, gendarmerie; escorts, one-half platoon cavalry; total, 20 officers, 105 men (11 cyclists), 87 horses, 10 wagons. Two or 3 infantry brigades (of 2 regiments of 3 battalions each); 1 chasseur battalion; 1 reserve squadron: artillery, at least 9 batteries (4 guns), 36 guns; 1 engineer company with division bridge train; 1 ambulance company; 1 butcher division; total, 12 to 18 battalions, 1 squadron, 36 to 48 guns.

Fighting strength, rifles, 11,424 to 17,136; lances, 143; guns, 36 to 48.

Proportion of cavalry and artillery in an infantry division (2 brigades) at war strength: For every 1,000 rifles, 12 to 9 sabres, 3.1 to 2.8 guns.

## THE BRIGADE.

Commanded by a major general.

Two regiments.

*The regiment.*—One colonel, 1 lieutenant colonel, 1 adjutant (“captain major”), 1 supply officer (lieutenant), 1 color bearer (lieutenant), 1 surgeon major (captain), 1 bandmaster (lieutenant), 1 master artificer (the sergeant major has immediate charge of the regimental combat train), 1 sergeant hospital corps, 1 baggage-master (sergeant in charge of post office), 1 veterinary, 1 farrier sergeant, underfarriers, 1 chief armorer, workman armorers, 1 saddler, 1 sapper corporal, 12 sappers, 1 principal musician, 1 drum major, musicians (band), 12 mounted scouts (drawn from cavalry in war time), bicyclist, orderlies, 21 teamsters (in addition to company and battalion teamsters), 2 or 3 machine-gun sections, 12 clerks.

Transportation (in addition to battalion and company): Eight riding horses, 2 ration and baggage wagons, 1 rolling kitchen, 13 provision wagons, 2 tool wagons, 1 forge, 3 battalions.

War strength, 68 officers, 3,190 men (not including band, underfarriers, workman armorers, bicyclist, and orderlies), 183 horses, 63 vehicles.

Fighting strength, 2,856 rifles; 1 to 6 machine guns.

## MACHINE GUNS.

Total strength of a section on a war basis, 1 officer, 29 men, 13 animals, composed as follows:

Firing section of 2 guns; 1 lieutenant commanding section; 1 sergeant assistant; 2 corporals, chiefs of piece; 2 privates, gunners; 2 privates, loaders; 2 privates, assistant loaders; 1 private, range finder; 1 private, armorer; 1 corporal, in charge of ammunition supply; 4 privates, ammunition servers; 1 private, orderly and “agent de liaison”; 9 privates, packers; 9 pack animals, 2 animals for gun and carriage, 6 for ammunition, 1 extra.

*Combat train.*—One corporal, in charge of combat train; 2 privates, teamsters; 4 draft horses; 1 caisson, capacity 21,900 cartridges. Each pack animal carries 1,800 cartridges. Total ammunition supply available each section, 32,700 cartridges.

*The battalion.*—One major, 1 adjutant (captain or lieutenant), 1 surgeon (lieutenant), 1 assistant surgeon (contract surgeon), 2 sergeants, 2 corporals, 1 bicyclist, 2 teamsters, 3 orderlies, 4 companies, 19 officers (7 mounted), 1 contract surgeon, 1,011 enlisted men, 1 meat wagon, 1 medical wagon.

*The company.*—One captain (mounted), 3 lieutenants. War strength, 250 men; 7 horses; 3 vehicles (1 ration and baggage wagon, 1 rolling kitchen—still in experimental stage—1 ammunition wagon).



Fighting strength, 238 rifles. The 250 men include 4 musicians, 1 hospital corps attendant, 4 litter bearers, 3 teamsters. The company at war strength is composed of 16 squads, combined into 4 sections. The first lieutenant commands the first section; the second lieutenant commands the fourth section; the third lieutenant or sergeant major, the second section; the adjutant, the third section.

#### THE CAVALRY DIVISION.

One headquarters, 3 brigades, smaller units of the different arms of the service.

*The brigade.*—Two regiments.

*The regiment.*—One colonel; 1 lieutenant colonel; 2 majors (chefs d'escadron), commanding a half regiment; 1 captain, adjutant; 1 captain, treasurer; 1 captain, in charge of material; 1 lieutenant, assistant to treasurer; surgeons, variable; veterinarians, variable; total staff, 9 officers, 14 horses: supplementary officers. 3 captains (performing functions on the staff and in charge of the mobilization); 4 active squadrons; 1 depot squadron. War strength, 35 officers, not including surgeons and veterinarians; 683 men (not including men of the auxiliary service, 60 men to the regiment). Officers' horses, 48; troopers' horses, 670. Fighting strength, 572 lances.

*The squadron.*—One captain, 4 lieutenants. War strength, 5 officers, 160 men, 143 riding horses, 4 draft horses. Fighting strength, 143 lances.

#### FIELD ARTILLERY.

*The regiment.*—One colonel; 1 lieutenant colonel; 3 majors (chefs d'escadron); 1 major; 1 captain (adjutant major); 1 captain, director of the park; 1 captain, charge of mobilization; 1 captain, instructor of equitation; 1 captain, treasurer; 1 captain; 1 major surgeon; 1 contract surgeon; 1 major, veterinarian; 1 first veterinarian; 1 second veterinarian; 1 third veterinarian; 1 aid veterinarian, 9 to 12 batteries.

*The battery* (peace strength).—Light battery, 3 officers, 90 to 160 men; 57 horses, 4 pieces. Horse battery, 103 horses, 4 pieces. War strength, 5 officers, 170 to 200 men.

#### PROMOTION OF OFFICERS.

Second lieutenants are promoted to first lieutenants after two years. Lieutenants are promoted to captains by arm as vacancies occur, two-thirds by seniority, one-third by selection.

Captains are promoted majors as vacancies occur, one-half by seniority, one-half by selection. All promotions above majors are made by selection.

## GERMANY.

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The German Army as now organized in peace consists of 25 army corps and 1 cavalry division, besides certain special troops, schools, recruiting districts, etc.

The organization into armies is provided for by existing headquarters and staffs of 6 so-called inspection districts.

Normally the army corps is composed of 2 infantry divisions and certain train troops and other auxiliaries. There are now, however, 2 corps having 3 divisions each, making a total of 50 divisions and 1 cavalry division.

While the cavalry divisions which would mobilize in war are not all formed in time of peace, there exist certain staffs for such divisions and they are assembled for instruction from time to time.

The division in peace varies somewhat in organization. There is, however, a definite normal division, and such divisions would be the rule in war. The reason for the variations in time of peace is found in the fact that the strength of the army is established by a law operative over a period of five years. Each periodical law increases the strength of the army, but the staffs are not always created at the same time as the troops. It thus happens that each period sees certain troops for whom staffs do not exist for the formation of the type units. As a rule each periodical law, however, establishes the necessary staffs for those units which were created by the preceding law.

### INFANTRY.

The typical infantry formations are as follows: Four companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division, with one of the divisions in a corps having an extra battalion of sharpshooters (Jagers or Schutzen).

There are 112 infantry brigades with 217 regiments. There are 651 battalions of infantry. The strength of battalions in peace is either 18 officers and 641 men, or 22 officers and 719 men, depending upon circumstances. The infantry numbers in peace, including machine-gun detachments, 17,690 officers and 489,541 men. The strength of the battalion in war is variously estimated at from 980 rifles to 1,000 rifles. It is probable that the war-strength battalion is able to count 25 officers and 1,000 rifles and that the ration strength is about 1,100 officers and men.

## ARTILLERY.

All officers of artillery are on one list. The artillery is divided into field and foot (fortress) artillery.

The fortress artillery garrisons the land fortresses, such as Metz, etc., and furnishes the heavy field and siege artillery needed with the mobile arm. Seacoast fortifications are under the navy.

## FIELD ARTILLERY.

The typical field artillery formations are as follows: Three batteries to the battalion, 2 battalions to the regiment, 2 regiments to the brigade. The battery has 6 guns. There are 50 field artillery brigades and 100 regiments. There are 609 batteries.

The peace strength of batteries varies according to circumstances, as follows: Four officers and 143 men, 4 officers and 124 men.

The field artillery numbers in peace 4,692 officers and 82,091 men. The battery in war counts 5 officers and 150 men.

Each battalion in war has a light-ammunition column of 4 officers and 188 men.

The total war strength of a battalion is thus about 660 officers and men.

## FOOT (FORTRESS) ARTILLERY.

The organization of the foot artillery varies greatly. It may be said, however, that the typical formations are as follows: Four batteries to the battalion, 2 battalions to the regiment.

There are 24 regiments, 48 battalions, 226 batteries.

The peace strength of a battalion is usually about 21 officers and 600 men.

The foot artillery numbers in peace 1,613 officers and 36,744 men.

The war strength varies according to the service. For a heavy howitzer battalion the strength in officers and men is 1,230, including its light-ammunition column.

As a rule 1 battalion of heavy field howitzers is, in war, assigned each army corps. Each of these battalions consists of 4 batteries of 4 guns each.

Heavy field mortar batteries and siege batteries are assigned according to particular necessities.

## CAVALRY.

The typical formations of cavalry are as follows: Five squadrons to the regiment, 2 regiments to the brigade. There are 1 cavalry division, 69 brigades, 110 regiments, 547 squadrons. The squadron should not be confused with the squadron in the United States.

In peace the regiment has 26 officers and 740 men.



The cavalry numbers in peace 2,585 officers and 84,071 men.

The squadron on a war footing numbers 5 officers and, probably, 180 men, of whom 150 are counted as sabers.

It is probable that the regiment only mobilizes 4 squadrons, the fifth squadron being left behind as a depot squadron.

#### TECHNICAL TROOPS.

It is necessary to consider engineer and signal troops together if we wish to make any comparison between these organizations and those of the United States.

Germany divides troops of this class into pioneer troops and "Verkerstruppen," literally communication troops. The latter are further subdivided—for example, railroad troops, telegraph troops, airship troops, etc.

These troops number altogether in peace 1,030 officers and 29,713 men.

These troops are capable of almost indefinite expansion in war. It may be noticed that the normal composition of pioneer companies serving with divisions on a war footing is 270 men.

#### AVIATION TROOPS.

There are 5 battalions, comprising 6 field officers, 16 captains, 58 lieutenants, 6 surgeons, 1 veterinary, 6 hospital corps men, 25 employees, 174 noncommissioned officers, 1,164 men, 17 laborers, 64 horses.

#### SUPPLY TRAIN.

Each battalion is composed of 3 companies and a bakery detachment.

There are 23 battalions. The peace strength of a battalion is 14 officers and about 349 men.

The total peace strength is 346 officers and 7,692 men. The train can be almost indefinitely expanded in war.

#### SANITARY TROOPS.

The medical department is composed in peace of a total of 2,288 officers and 4,327 men.

It is impossible to give any accurate idea of the strength of the sanitary troops in war, except for those serving with the army corps.

#### REMARKS ON TROOPS.

In addition to the troops noted above, there are a great many special organizations, schools, castle guards, etc.

In addition there are, of course, administrative officers, general staff, etc.

## VETERINARIANS.

The peace footing is 761.

## TOTAL NUMBER OF OFFICERS.

The total number of officers, exclusive of medical officers and veterinarians, on a peace footing is 25,722. These are divided among grades as follows:

General officers .....	389	Captains .....	6, 535
Regimental commanders (col- nels) .....	668	Lieutenants .....	15, 554
Majors .....	2, 356	Special grades (usually high) ..	220

A noticeable feature of the German officer corps is the number of nonregimental officers—2,916.

All detached service is performed by extra officers. An organization has the officers to which it is entitled constantly with it.

In addition to the above there are about 25,000 reserve officers.

## TOTAL PEACE STRENGTH.

The total peace strength amounts to 806,016 officers and men. To these there should be added from 10 to 12 thousand "Einjahrigfreiwilligers." These men serve for one year, defraying their own expenses.

## TOTAL WAR STRENGTH.

The organization of Germany's maximum mobilization can not be given with any degree of accuracy. The sum total of *trained* men which she is able to mobilize amounts to 4,610,000.

What is believed to be a conservative estimate of her *initial* mobilization is as follows (this for 1911; increases have not been made public):

Battalions of infantry .....	962	Batteries (light) .....	828
Squadrons of cavalry .....	528	Batteries (heavy) .....	92

The fighting strength of the three arms on the *initial* mobilization would thus be:

Infantry rifles .....	962, 000	Field guns .....	5, 336
Cavalry sabers .....	79, 200		

## COLONIAL TROOPS.

No German troops of the army proper serve outside the home country in time of peace.

Exact data as to the numbers of colonial troops are not available, but it is a conservative estimate that such troops total over 10,000 officers and men.

## CONDITIONS OF SERVICE.

Service is compulsory and liability extends from the seventeenth to the forty-fifth year of the citizen's age.

The total period of service is divided into numerous categories, of which only the more important will be mentioned.

Service with the colors is three years with the cavalry and horse artillery and two years for other arms.

After serving with the colors, the men pass into the reserve, in which they serve 4 years and 6 months or 5 years and 6 months, according to the arm of the service. During their service the men of the reserve may be called out for two periods of training of 8 weeks each. In practice the majority of the reserve is seldom held longer than 28 days for each period.

Passing from the reserve the men go into various other categories. The characteristic of this transition is the constant diminution of the period for which the men are liable to be called out for peace training. This diminution is continued until reaching the "Landsturm"; they are only liable for call in war. Germany has more men annually arriving at the age of military service than she needs for duty with the colors. Somewhat over one million men annually present themselves, of whom a little more than 250,000 are actually drafted for duty with the colors.

NOTE.—The new "Quinquennate" for 1911-1915 provides for increases as follows: 1 battalion of infantry, 112 machine-gun companies; 2 field artillery brigade staffs, 2 field artillery regimental staffs, 4 field artillery battalion staffs, 18 field batteries, 3 foot artillery brigade staffs, 6 foot artillery regimental staffs, several battalion staffs, and 15 foot batteries. In addition, there are certain increases in other staffs and technical troops.

Peace strength, 31,459 officers; 768,540 noncommissioned officers and men, approximately; 157,788 horses; 669 battalions of infantry; 550 squadrons; 633 batteries (6 guns), with engineer, communication troops, etc.

War strength, 1913, real military resources, 7,000,000 men, of whom 4,000,000 have had military training. This for a war of defense, and is practically its resources in men. For an offensive war there would be available: the active army, the reserve, the Ersatz reserve, the first division of Landwehr, a total of about 3,000,000 men. These would again divide into a "first-line" army of about 1,700,000 men and a "second-line" army of about 1,300,000 men.

It is calculated that the field army in the third week of a great war would consist of the 670 battalions, 440 squadrons, and 635 batteries, with technical, departmental, and medical troops, say 670,000 rifles, 70,000 lances, 3,800 guns—800,000 men—reinforced by 350 fresh battalions.

Behind these forces there would become shortly available for secondary operations about 460 battalions of first-division Landwehr,

and 200 squadrons, and about 220 batteries of the reserve and Landwehr.

In addition, there would be left behind depot troops to form the nucleus on which the second division Landwehr and Landsturm would eventually be built up.

Per cent of peace strength of army to total population :

Population (census 1910)-----	64, 935, 933
Peace-----	800, 000
Per cent-----	1. 2
Annual appropriation (1913)-----	\$210, 482, 580

#### ADMINISTRATION.

Commander in chief: The Emperor, absolutely in time of war, somewhat limited in time of peace, as to the Bavaria, Saxony, and Wurtemberg contingents. He is assisted by a military cabinet consisting of the ministry of war, the great general staff, the inspectors of the army, the inspectors of the various arms.

#### ORGANIZATION.

The largest permanent unit in time of peace is the army corps. Germany has at present 25. Each corps, excepting the Guard Corps, stationed in Berlin, has a territorial district assigned to it from which it is recruited.

#### THE ARMY CORPS.

*Commanded by a general.*—Consists in time of peace of 2 divisions of infantry (each having 1 brigade of cavalry); 1 to 3 regiments of heavy artillery (6 army corps have no heavy artillery; 1 has 1 battalion, 14 have 1 regiment each, 3 have 2 regiments each. 1 has 3 regiments); 1 to 2 battalions of pioneers with bridge train; 1 to 2 Jager battalions (in 16 of the 25 corps); 1 battalion (4 companies) train troops.

*Communication troops.*—Two corps have railroad, telegraph, and balloon and aviation corps; 1 corps has telegraph, balloon, and aviation troops; 1 corps has railroad and telegraph troops; 2 corps have telegraph troops.

*Composition and strength of a mobilized army corps.*—Two infantry divisions, 1 company pioneers, 1 section balloon troops,  $\frac{1}{2}$  company field signal troops, 1 section radio troops, 1 section telephone troops, 1 cavalry telegraph section (sometimes a battalion of heavy field howitzers is added, 4 batteries of 4 guns each—16 guns), 12 ammunition columns (4 infantry and 8 artillery), 13 supply columns, 1 corps bridge train, 2 field bakery columns, 12 field hospitals, 2 horse depots.

*War strength.*

	Men.	Horses.	Vehicles, including guns.	Composition.	Fighting strength.
Fighting troops.....	36,000	9,000	1,200	25 battalions, 8 squadrons, 24 batteries....	25,750 rifles, 1,200 lances, 144 guns.
Ammunition and train columns.....	5,000	5,000	1,200		
Total.....	41,000	14,000	2,400		

## THE DIVISION.

The division is commanded by a lieutenant general who exercises supervision over all the troops composing it in their instruction and training. He directs the division maneuvers and supervises those of the brigades, and is the head of military justice in the division.

*Staff of the division commander.*—One officer of the general staff; 1 adjutant; 3 to 4 judge advocates; 1 head of supply service; 1 division surgeon; several chaplains.

*Composition of the division.*—Two to three brigades of infantry (12 to 18 battalions); 1 regiment of cavalry (4 squadrons); 1 brigade of field artillery; 1 company of engineers (pioneers); 1 light bridge train; 1 sanitary company (ambulance company); 1 telephone section; 2 infantry ammunition columns; 4 artillery ammunition columns; 6 supply columns; 4 field hospitals; 1 horse depot.

*Numerical strength.*—Men, 17,000; horses, 4,000; vehicles (including guns), 600.

*Fighting strength.*—Twelve thousand two hundred and fifty rifles (13,500 if Jagers are attached), 600 lances, 72 field guns. Proportion of cavalry and artillery in an infantry division at war strength: For every thousand rifles, 50 lances, 6 guns.

## THE BRIGADE.

Infantry, cavalry, and field artillery consists of 2 regiments and is commanded by a major general.

## THE INFANTRY REGIMENT.

Consists of 3 battalions and a machine gun company, commanded by a colonel or lieutenant colonel.

War strength, 3,290 men, 190 horses, 59 vehicles; fighting strength, 3,000 rifles.

Transportation: One headquarters baggage wagon, 1 intrenching tool wagon.

*The infantry battalion.*—Commanded by a major; 1 battalion adjutant; 4 companies.

Transportation: Combat train. 1 battalion sanitary wagon; field train, 1 headquarters baggage wagon.



Upon mobilization the company signal details are united into a telephone detachment for the purpose of maintaining communication with the regiment.

*The infantry company.*—Commanded by a mounted captain. From 3 to 4 lieutenants.

War strength, 270 men, 10 horses, 4 vehicles (combat train, 1 ammunition wagon, 1 field kitchen; field train, 1 ration wagon, 1 baggage wagon).

Fighting strength, 250 rifles.

The company is divided into 3 platoons, a platoon into half platoons, and the half platoons into squads of 8 men.

The 270 men include 4 musicians, 4 litter bearers, 4 cyclists, 3 signal men, and 4 teamsters. The teamsters are supplied from the train battalions upon mobilization, who, upon reporting to the company, are attached thereto and reenforced in the company.

*The machine gun company.*—Officers: One captain, 3 lieutenants, all mounted. Six guns, divided in 3 platoons of 2 guns each. War strength, 90 men, 40 horses, 12 vehicles.

*Jagers.*—These are infantry that have received a special training in musketry.

#### THE CAVALRY DIVISION.

Commanded by a lieutenant general, and consists of 3 brigades of cavalry (2 regiments, 4 squadrons each); 1 battalion of horse artillery (3 batteries of 4 guns each, 12 guns); 1 machine gun section (6 machine guns); 1 pioneer section (35–40 men); 1 radio section; 1 light ammunition column.

War strength, 5,000 men, 5,300 horses, 200 vehicles (including guns); fighting strength, 3,600 lances, 12 guns.

Cavalry divisions are not formed in peace time. Upon mobilization the peace army corps lose all the cavalry assigned to them except one regiment per division—the divisional cavalry. Cavalry divisions are then formed as above. There are 110 regiments of cavalry. The 50 divisions will require 50 regiments of divisional cavalry leaving 60 regiments—30 brigades—10 divisions, one of which (Guards) is in existence in times of peace, the other 9 would be organized at once upon mobilization.

Smaller units of the different arms of the service.

#### THE CAVALRY REGIMENT.

Consists of 5 squadrons in time of peace. Upon mobilization the fifth squadron is used to fill up the other 4, and then becomes the depot squadron. The regiment is commanded by a colonel or lieutenant colonel. Each regiment has a bridge equipage carried upon two 6-horse wagons that permits the construction of a bridge, 1 by 20 meters, or 2 by 12 meters, or 3 by 8 meters, or a raft of 16 square

meters surface. Each regiment has 2 telephone detachments, each consisting of 1 noncommissioned officer and 3 privates.

War strength, 730 men, 800 horses, 19 vehicles, 4 squadrons; fighting strength, 600 lances.

*The squadron.*—Commanded by a captain: 3 to 4 lieutenants.

War strength, 180 men, 180 horses, 3 vehicles; fighting strength, 150 lances.

#### FIELD ARTILLERY.

*The brigade.*—Commanded by a major general or colonel and consists of 2 regiments—72 guns; 1 battalion of the field artillery of each army corps is a howitzer battalion.

*The regiment.*—Commanded by a colonel or lieutenant colonel. It has 2 battalions (some have 3)—36 guns.

*The battalion.*—Commanded by a major. Consists of 3 batteries—18 guns.

*The battery.*—Commanded by a captain; 3 lieutenants (4 with a horse battery). A mobilized battery has 6 guns, divided into 3 platoons of 2 guns each.

*Ammunition.*—In limbers  $6 \times 36$ —216 shrapnel; in ammunition wagons  $6 \times 90$ —540 shrapnel; in first store wagon 36 shell. Total for battery, 792 rounds; total per gun, 132 rounds.

The horse artillery upon mobilization is assigned to the cavalry division.

#### War strength of artillery units.

Unit.	Men.	Horses.	Vehicles.	Composition.	Fighting strength.
Battery:					
Field.....	150	135	17	.....	6 guns.
Horse.....	170	225	17	.....	6 guns.
Battalion:					
Field.....	480	400	53	3 batteries.....	18 guns.
Horse.....	370	460	36	2 batteries.....	12 guns.
.....				3 batteries.....	12 guns.
Regiment.....	930	820	106	6 batteries.....	36 guns.
Light ammunition column.....	190	190	24	3 sections.....	3 ration and baggage wagons—24.
Cavalry division.....	150	200	25	Not known.	

#### PROMOTION OF OFFICERS.

No law regulates promotion nor limits age. The Emperor promotes officers conforming to certain traditions. Practically, officers deemed fit for a higher grade are promoted by seniority. Those that are passed over are warned to apply for retirement.

Promotions take place as follows: To first lieutenant from the arm; captain, by corps in the infantry, cavalry, and artillery, by arm in the chasseurs, pioneers, and train; to major, from the arm, except in the infantry, where it is by regiment.

## AUSTRIA-HUNGARY.

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The dual monarchy of Austria-Hungary maintains three separate armies supported by the Empire, by Austria, and by Hungary, respectively.

These armies are known as the common army, the Austrian (Cisleithane) Landwehr, and the Hungarian Landwehr, respectively. The two Landwehr armies differ, however, from the Landwehr of other countries in that they are maintained with the colors in time of peace. At the same time their organization is somewhat miscellaneous, and it is believed that to gain a clear idea of the Austrian system it is necessary to consider the common army separately from the two Landwehr armies. To save space all the Landwehr troops are grouped together. It may also be noted that the common army is known as the first line, and the two Landwehr armies as the second line.

### HIGHER ORGANIZATION.

In the common army there are 16 army corps with 33 divisions. There are 15 divisions in the Landwehr. There are 5 cavalry divisions organized in peace; they are attached to army corps and all belong to the common army.

The common army has 58 brigades of infantry and 19 brigades of cavalry. In the Landwehr there are 30 brigades of infantry and probably 6 of cavalry. There are 16 brigades of field artillery in the common army, organized in peace.

The above is believed to be correct, although some authorities give a greater number of brigade organizations for infantry and cavalry.

### INFANTRY.

The formations of infantry vary, but it may be said that the typical formations are 4 companies to the battalion; 4 battalions to the regiment; 2 regiments to the brigade; 2 brigades to the division. In the common army there are 110 regiments with 467 battalions. In the Landwehr there are 72 regiments with 228 battalions.

The strength varies greatly in peace. Some of the Landwehr companies have as low as 5 officers and 50 men. For the common army the usual strength is 5 officers and 92 men to the company.



The total peace strength is as follows:

	Officers.	Men.
Common army.....	11,243	185,814
Landwehr.....	6,415	62,167
Total.....	17,658	247,981

In war the battalion numbers about 1,000 officers and men, counting about 900 rifles. The typical army corps thus has a war strength of about 28,800 infantry rifles.

#### FIELD ARTILLERY.

The present organization is as follows:

	Brigades.	Regiments.	Battalions.	Batteries.
Common army.....	16	62	131	366
Landwehr.....				34

The peace strength varies greatly; the usual battery strength is 5 officers and 90 or 109 men. In addition to the battery strength regiments have a reserve of men.

The total peace strength is as follows (minimum figures):

	Officers.	Men.
Common army.....	2,297	34,772
Landwehr.....	397	5,796
Total.....	2,694	40,568

It is understood that in war the regiments mobilize a large additional number of batteries, but no definite information is available.

The opinion is ventured that the war organization corresponds, so far as concerns artillery, to that of Germany. This would give 3 batteries and a light ammunition column to the battalion, the strength of batteries being about 150 men. This would require the mobilization of an extra battery for the majority of battalions and the division of the existing regimental ammunition column into two columns, one for each battalion of the regiment.

As to the number of pieces in the battery on a war footing the consensus of opinion seems to point to 6. With the old material it was 8 with 6 officers and 190 men.

It is believed that the "transitory state" is responsible for the lack of reasonably accurate information on this subject.

## FORTRESS ARTILLERY.

The fortress artillery is divided between coast artillery and the garrisons of land fortresses as distinguished from coast fortifications. It is all part of the common army. The total is 6 regiments with 24 battalions and 92 batteries. The total number of officers and men on a peace footing are 574 and 9,360, respectively.

Dividing them by the character of their service we have:

## COAST ARTILLERY.

Some companies are serving as coast artillery.

Definite data as to the total peace strength of these troops are not available. Estimating the strength as slightly greater than that of other fortress organizations would give 100 officers and 2,000 men.

The war strength is probably 250 men per company.

## FORTRESS ARTILLERY (LAND).

This artillery garrisons the various land fortifications and furnishes siege and heavy field artillery as well as, probably, some machine guns, to the mobile forces.

The war strength of batteries is 6 officers and about 250 men.

## CAVALRY.

The typical formations of cavalry are: Six squadrons to the regiment, 2 regiments to the brigade, 2 brigades to the division.

There are 19 brigades with 42 regiments and 252 squadrons in the common army, and 6 brigades with 16 regiments and 101 squadrons in the Landwehr. The peace strength of squadrons in the common army is nominally 5 officers and 171 men; some of the men are, however, detached to form pioneer and other detachments at headquarters.

The strength of squadrons of Landwehr is 5 officers and 72-128 men for the Austrian and 4 officers and 64-100 men for the Hungarian.

Total strength and distribution are as follows:

	Officers.	Men.
Common army.....	1,987	45,164
Landwehr.....	826	9,197
Total.....	2,813	54,361

The war strength of squadrons, both armies, is 5 officers and 171 men, counting 150 sabers. Each regiment also forms a reserve squadron and a depot squadron; cadres exist for these in peace.

## TECHNICAL TROOPS.

These troops have a variety of organizations. There are 15 pioneer battalions with 5 companies each and cadres for reserve companies, and 14 battalions of sappers, charged with the attack and defense of lines of communication.

There is 1 brigade of communication troops, consisting of 1 railroad and 1 telegraph regiment, 207 officers, 427 noncommissioned officers, and 1,805 men; also an aero section of 19 officers, 25 noncommissioned officers, and 119 men; and an automobile detachment of 16 officers, 25 noncommissioned officers, and 134 men. The war strength of companies is 5 officers and 223 men.

All technical troops belong to the common army. The total of all technical troops is as follows: 894 officers, 12,100 men.

The peace strength of pioneer companies is 5 officers and 112 men.

In war these troops are enormously expanded. In the first place each battalion of pioneer troops forms 2 extra companies, then each company is raised to about 5 officers and 250 or more men.

## TRAIN TROOPS.

There are 16 so-called divisions (battalions). They all belong to the common army.

The total is 444 officers and 4,626 men.

These troops are capable of enormous expansion in war, but no definite data are available.

## SANITARY TROOPS.

The peace strength is 1,247 officers and 3,060 men, all belonging to the common army.

The war strength is not known.

## REMARKS ON TROOPS.

In addition to the troops noted there are special formations, schools, staffs, etc.

## TOTAL PEACE STRENGTH.

The total peace strength is 34,069 officers, including a certain number of officials classed as officers, and 438,646 men.

## TOTAL WAR STRENGTH.

It is impossible to give any definite accurate statements as to Austria's maximum mobilization or even as to her initial mobilization. Estimates as to the total number of fully trained men subject to call vary.

Following the conservative plan which has been used in estimating the strength of other countries, it may be said that Austria has 2,000,000 fully trained men subject to call.

Assuming that the *initial* mobilization would be confined to raising *existing* organizations to a war footing we would have:

Common army:		Landwehr:	
Infantry battalions -----	467	Infantry battalions -----	228
Batteries field artillery -----	366	Batteries field artillery -----	34
Squadrons cavalry -----	252	Squadrons cavalry -----	101

This would give the following fighting strength of the three armies:

Common army:		Landwehr:	
Infantry rifles -----	420,300	Infantry rifles -----	205,006
Field guns -----	2,196	Field guns -----	204
Cavalry sabers -----	37,800	Cavalry sabers -----	15,150

The latest estimate of war strength is as follows: Common army, 1,360,000 men; Landwehr (Austrian), 240,000 men; Landwehr (Hungarian), 220,000 men; Landsturm, 2,000,000 men; Ersatz reserve, 500,000 men. An approximate total of 4,320,000 men.

It will be noted that the above figures do not consider the use of any fortress artillery as field artillery, nor do they consider the formation of additional organizations of any arm.

It is not certain that Landwehr organizations mobilize at the strength of regulars.

All in all, the figures for the common army may be considered reliable, while those for the Landwehr, so far as concerns war organization, are but little more than an incomplete guess.

#### CONDITIONS OF SERVICE.

Service is compulsory and liability extends from the nineteenth to the forty-second year of the citizen's age.

Service is divided into numerous categories. The most important of these are as follows: Common army, 3 years with the colors and 7 years in the first reserve; during the latter period the men are subject to call for 3 periods of training of 4 weeks each. Landwehr, 2 years with the colors and 10 years in the first reserve; during the latter period the men may be recalled for instruction under varying and complex rules.

#### *Peace strength, 1914.*

Common army:	
Officers -----	24,978
Cadets -----	1,703
Men -----	344,044
Austrian Landwehr:	
Officers -----	5,230
Cadets -----	307
Men -----	49,654

Hungarian Landwehr, officers and men-----	42, 800
Bosnian troops, officers and men-----	8, 000
Total-----	472, 716

*War strength, 1914.*

Common army-----	1, 360, 000
Landwehr, Austrian-----	240, 000
Landwehr, Hungary-----	220, 000
Landsturm-----	2, 000, 000
Ersatz reserve-----	500, 000

Total (approximately)----- 4, 320, 000

Per cent of peace strength to total population:

Population-----	51, 340, 378
Census-----	1910
Peace strength-----	472, 716
Per cent-----	0. 9

Annual appropriation for the army, 1913, exclusive of the appropriation for gendarmerie and military police----- \$111, 125, 426

## ADMINISTRATION.

Commander in chief: The Emperor and King.

Military chancellerie, an intermediate organization between the Sovereign and the ministers of war.

Minister of war of the Empire, common army.

Minister of war, Cisleithan, Austrian army.

Minister of war, Transleithan, Hungarian army.

## GENERAL STAFF.

The chief of staff is under the direct orders of the Emperor. However, except in special cases, he reports through the minister of war.

## ORGANIZATION.

The highest organization in time of peace is the corps. There are 16 army corps.

## THE ARMY CORPS IN NORMAL WAR FORMATION.

Headquarters.

One company and 1 platoon cavalry, escort; 3 divisions, infantry (2 common, 1 Landwehr); 1 regiment artillery, light or howitzer; 1 battalion pioneers, 1 light bridge train; 1 tool column; 1 ammunition park; 1 detachment telegraph and telephone; 1 train squadron; 1 field hospital; 1 subsistence convoy.

Fighting strength: Austria-Hungary keeps secret the fighting strength of her units. The fighting strength of a corps of three divisions is probably 45,000 rifles, 132 guns.



## THE DIVISION.

There are 49 divisions, of which 33 are of the common army, 8 of Austrian Landwehr, 8 of Hungarian Landwehr.

Headquarters: One company of infantry, 1 platoon of cavalry, escort; 2 brigades of infantry; 3 squadrons of cavalry; 1 regiment of field artillery; 1 ammunition park; 1 telegraph detachment; 1 subsistence convoy; 1 ambulance company; 1 train squadron; an effective strength of about 15,000 rifles, 24 to 36 guns.

Proportion of cavalry and artillery in an infantry division at war strength: For every 1,000 rifles, 30 sabers and 1.6 to 2.4 guns.

## THE INFANTRY BRIGADE.

As a rule 2 regiments form a brigade.

*The infantry regiment.*—A regiment consists of the regimental staff, 4 battalions, and 1 skeleton or depot battalion. Regiment has about 4,000 men; say about 3,600 rifles.

*The battalion.*—A battalion consists of 4 companies. It has about 1,000 men.

*The company.*—In 1909 a company of the common army consisted of 4 sections. Peace footing. 1 captain; 1 first lieutenant; 2 second lieutenants; 10 noncommissioned officers, and 82 men.

In 1914 of the 1,632 companies of the common army (infantry), 506 have a strength of 120 men and 1,126 a normal peace footing of 92 men.

In 1909 the Landwehr infantry had companies of 55 to 62 men. In 1914 and later these companies will be increased to 95 and 120 men.

The war strength of a company is about 250 men.

*Machine guns.*—A machine-gun detachment consisting of 2 guns, 1 officer, 3 noncommissioned officers, 9 men, 1 horse, 4 mules has been attached during recent preparation against Servia to each infantry battalion. Each gun is provided with 20,000 cartridges.

## CAVALRY DIVISIONS.

Ten cavalry divisions (2 Hungarian Landwehrs).

*The division.*—Two brigades of cavalry of 2 regiments each; 1 detachment of machine guns; 1 battalion of horse artillery; 1 ammunition column; 1 train squadron; effective strength 3,600 troopers, 12 guns. Smaller units of the different arms of the service.

*The regiment.*—There are 42 cavalry regiments of the common army, 6 of Austrian Landwehr, and 10 of Hungarian Landwehr. The regiment is commanded by a colonel or lieutenant colonel. Two majors, each commanding 3 squadrons.



Staff: One subaltern, regimental adjutant; 1 subaltern, regimental commissary; 1 subaltern, commanding pioneer troop; 1 surgeon; 1 clerical officer; 1 veterinary surgeon; 2 sergeants; 2 noncommissioned officers, telegraph operators; 3 noncommissioned officers, clerks; 2 buglers; 1 gunsmith; 6 officers' servants; 6 squadrons (active); 1 pioneer squadron; 1 depot squadron. Peace strength: Forty-five officers, 1,083 men, 1,021 horses.

*The squadron.*—The peace strength differs. A squadron of a common army consists of 5 officers, 21 noncommissioned officers, 145 men, and 149 Government horses. A squadron of the Austrian Landwehr consists of 5 officers, 1 cadet, 9 noncommissioned officers, 63 men, and 60 Government horses. A squadron of the Hungarian Landwehr consists of 4 officers, 1 cadet, 7 noncommissioned officers, 57 men, and from 43 to 58 Government horses. The war strength is 150 riders.

#### THE ARTILLERY.

*Common army.*—Forty-two regiments of light artillery (each regiment consists of 5 batteries of 6 pieces); 14 regiments of light howitzers of 4 batteries each; 8 battalions of horse artillery; 8 battalions of heavy artillery (each battalion of 2 batteries of 2 pieces); 10 regiments of mountain artillery (each regiment has 1 battalion of 4 batteries of light guns, and 1 battalion of 2 batteries of howitzers).

*Austrian Landwehr.*—Eight batteries of light artillery; 16 batteries of light howitzers.

*Hungarian Landwehr.*—Two regiments of light artillery, each regiment of 5 batteries; 2 battalions of horse artillery.

*Battery, peace footing.*—Batteries in field-gun or field-howitzer regiments have 1 captain, 3 subalterns; 11 mounted noncommissioned officers, including 1 bugler; 72 gunners and drivers; 2 noncommissioned officers and 2 privates, telephone detachments; 10 artificers and officers' servants; 19 Government horses (riding); 24 draft horses, 6 reserve draft horses, 4 guns, 2 caissons, 1 telephone wagon, 1 baggage wagon, 2 provision wagons.

#### PROMOTION.

Principally by seniority, exceptionally by selection. The number of promotions by selection must not exceed one-fifth of the vacancies. Officers can not be proposed for selection when they are in the last quarter of the seniority list. Promotion from the grade of colonel is exclusively by seniority, but officers thus promoted must have been found efficient.

## RUSSIA.

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It is difficult to make a satisfactory brief résumé of the Russian Army. This is due to several causes. In the first place, the vast extent of Russia's territory, the internal conditions of the nation, and the character of the countries adjoining her make it necessary for her to maintain what amounts to three separate armies, namely, the Army of Europe and the Caucasus; the Army of Central Asia; the Army of Siberia and Eastern Asia. Then the troops are divided up into numerous categories, some of which are most unusual and about which there is little information that can be depended upon. For example, we find "active troops," "reserve troops," "2d reserve troops," and "fortress troops."

For these reasons it is thought well to confine this study to the active troops and to the fortress troops.

### HIGHER ORGANIZATION.

The entire territory is divided into 13 districts, each district having a commander, who presumably commands the forces mobilized in the district in war.

There are 37 army corps, with 59 divisions organized in peace. In addition there are 23 cavalry divisions organized in peace. The cavalry divisions are usually assigned to army corps in peace. The cavalry division usually contains 24 squadrons, with 2 horse batteries.

The organization of the army corps varies in peace, but usually has two divisions.

The strength of the army corps at full war strength is probably 29,000 infantry rifles, 1,800 cavalry, and 112 guns, with a varying additional number of heavy guns.

### INFANTRY.

Typical formations are as follows: Four companies to the battalion; four battalions to the regiment; two regiments to the brigade; two brigades to the division.

There are, however, regiments with 2 or 3 battalions and battalions with 5 or more companies. There are 160 brigades with 343 regiments in the active army. The total number of battalions in the active army is 1,258.

Of fortress troops there are 44 infantry battalions. The infantry battalion numbers in peace, on the average, about 500 officers and men.

The total peace strength of the infantry of the active army and of the fortress troops is, therefore, as follows:

	Officers and men.
Active army-----	793,000
Fortress troops-----	22,000
Grand total-----	815,000

The war strength of the battalion is, probably, 872 rifles with a total of 1,000 officers and men.

#### ARTILLERY.

The artillery is divided between the artillery of the active army and that of the fortress troops, as well as the categories not considered here.

The batteries of the fortress troops are further divided into "sortie" batteries, "siege" batteries (including heavy field) and "fortress batteries." Of the latter class some are serving as coast artillery. Separating these various classes we have:

#### FIELD ARTILLERY.

The Russian artillery organization is peculiar. Batteries contain in peace 4 to 8 guns, 8 in war, and are commanded by lieutenant colonels. As the battery is so organized as to be divisible into two self-sustaining "half batteries," it may be said that the Russian "battery" in war is in reality a battalion. Two or three batteries form a group (regiment), and two or three groups a brigade, commanded by a general officer.

As a rule there are 6 batteries (48 guns), in one of the divisions of a corps and 8 batteries (64 guns) in the other division.

Horse artillery batteries have 6 guns. There are 61 artillery brigades in the active army, with 199 "groups" (regiments).

The total number of batteries (battalions) in the active army is 549.

In the fortress troops there are 5 "sortie batteries," giving a total of 554 batteries (battalions).

The battery in peace has 6 officers and 164 men.

The total peace strength of the field artillery is as follows:

	Officers and men.
Active army-----	152,942
Fortress troops-----	850
Grand total-----	153,792

The war strength of batteries is at least 6 officers and 201 men, possibly more.

## SIEGE (HEAVY FIELD) ARTILLERY.

There are 58 batteries, all of which are carried as a part of the fortress troops. The peace strength is 3 officers and 119 men, giving a total of some 7,076 officers and men.

The war strength of these batteries is probably 3 officers and 238 men.

## FORTRESS ARTILLERY.

There are 264 companies of fortress artillery. Of these 116 are serving at fortresses situated on the seacoast; for the purposes of this paper it is assumed that these 116 companies are all serving as coast artillery, although such is not believed to be the case.

The peace strength of these organizations varies. An average is probably 3 officers and 119 men per company. We thus have:

	Officers and men.
Fortress artillery-----	18,056
Coast artillery-----	14,152

It is to be remembered that the figures given for coast artillery are the *maximum*.

The war strength of organizations of fortress and coast artillery is not definitely known, but probably averages 3 officers and 238 men per battery.

## CAVALRY.

The cavalry organizations vary greatly. The regiment contains from 2 to 6 squadrons—6 being the most frequent number. As already stated there are 23 cavalry divisions organized in peace.

There are 745½ squadrons in the active army. The strength of the squadron varies greatly. The *maximum* average is probably 5 officers and 150 men. There are in the active army in peace about 138,000 officers and men. There are no cavalry organizations in the "fortress troops."

The war strength of the squadron probably averages 5 officers and 163 men, counting 150 sabers.

## TECHNICAL TROOPS.

These troops comprise engineer and signal troops. In the active army there are 299 companies of these troops. In the "fortress troops" there are 47 companies.

In the active army the technical troops are usually organized into battalions of 4 companies each. They are further organized into 17 brigades of a varying number of battalions.

In peace the strength of organizations varies very greatly. As an average 4 officers and 120 men per company is believed to be about

correct. This would give a total for the active and fortress troops of 37,448 officers and men. The war strength varies also. A *minimum* average is about 4 officers and 200 men.

#### SUPPLY TRAIN.

On a peace footing there are 5 battalions of 4 companies each in Europe, and there are 2 companies in Siberia. The peace strength of these organizations is not known. It is probably very large, considering the number of organizations, as on mobilization they furnish a complete supply train for each army corps.

#### SANITARY TROOPS.

The sanitary officers have no military rank, but instead have civil rank. The total peace strength of surgeons is 3,500; this includes surgeons of classes of troops other than those considered here. The peace strength of enlisted sanitary troops is not known.

The war footing of sanitary troops is not known.

#### GENERAL REMARKS ON TROOPS.

It is to be noted that there are many officers of infantry, cavalry, and artillery not included in the above. Neither are the men of various staffs, etc., included.

Neither are the staff officers included. There are also a great many special formations for schools, police, etc., concerning which no accurate information is available.

#### TOTAL PEACE STRENGTH.

The total peace strength amounts all told to about 1,284,000 officers and men.

#### TOTAL WAR STRENGTH.

The total number of *trained* men subject to call amounts to about 6,000,000.

The organization of these troops probably would follow the same proportions as those in the active army raised to a war footing.

The vast extent of Russia, the condition of many of her subjects and of more of her neighbors, and the peculiar political constitution of some of her provinces, combine to render it very problematical as to the number of troops Russia can mobilize on any one theater of war. Some authorities maintain that the difficulties cited limit the number which she can mobilize on any one theater to about 1,000,000 trained men. If, however, we remember that in the war with Japan, Russia mobilized and had in the field at the end of the war a million men and that the theater of war was only to be reached by a single line of railway several thousand miles in length, it seems



that on a conservative estimate Russia could mobilize 2,000,000 *fully trained* men upon her European frontiers.

#### CONDITIONS OF SERVICE.

Military service is obligatory. Passing from service with the colors the men pass into various reserves.

On account of the great variety of reserves, liability to call, etc., no further statements can be given in a brief form.

Russia's active army consists of 37 army corps. In time of war the permanent units with the addition of reserves will form new units; it is thought that each army corps will form 2 divisions of reserves.

Each division will receive a brigade of artillery of reserve.

#### *Summary of peace establishments.*

	Men.	Guns.
Infantry.....	815,000	.....
Cavalry.....	138,000	.....
Artillery.....	186,000	3,904
Other arms and departments.....	65,000	.....
Total.....	1,284,000	3,904

#### *Estimate of war strength.*

	Men.	Guns.
Infantry.....	1,968,321	.....
Cavalry.....	273,703	.....
Artillery.....	487,673	5,606
Other arms and departments.....	262,180	.....
Other trained men available.....	2,970,429	.....
Total.....	5,962,306	5,606

#### *Composition of army.*

- |                   |  |                           |
|-------------------|--|---------------------------|
| 1. Active army.   |  | 3. Second reserve.        |
| 2. First reserve. |  | 4. Militia (Opoltchenie). |

Service, obligatory between 21 and 43 years, unless especially excepted. (a) Infantry and field artillery, 3 years active, 7 years in first reserve, 8 years in second reserve, 5 years in militia. (b) Cavalry and horse artillery, 4 years active, 7 years in first reserve, 6 years in second reserve, 5 years in militia. (c) All born Cossacks serve beginning with twentieth year and serve 1 year in the preparatory category, 4 years in each of the first, second, and third categories of active service, and 5 years in the reserve category.

Per cent of peace strength to total population :

Population, 166,107,700.

Census, 1909.

Army strength, 1909, 1,000,000.

Per cent, 0.67.

Annual appropriation (1912)----- \$296,274,825



## ADMINISTRATION.

Commander in chief: The Czar.

The chief command and administration is vested in the war ministry. The minister himself reports directly to the Czar. The war ministry has various subdivisions, of which the most important are the council of war, the general staff, the intendance, the inspectors-general of cavalry, artillery, engineers, schools, target practice; army command.

## ARMIES.

On mobilization, 3 or 4 army corps are formed into armies. Excluded from the army corps and brought directly under the commander of the army are the following: The cavalry (Cossack) divisions and independent brigades; the sections of heavy artillery of the field army, the technical troops with the exception of the sapper battalions; and the train battalions. In addition, special train sections are assigned to armies.

## THE ARMY CORPS.

Two infantry divisions, 1 field howitzer section—12 guns, 1 field-howitzer park section, 1 telephone section, 1 telegraph company, 1 sapper company, 1 veterinary hospital, 2 movable bakers' ovens, 1 hygiene section, 1 corps-supply transport, corps section of field engineer park, cavalry or cossack sections.

Fighting strength, 29,000 rifles, 900 sabers, 64 machine guns, 108 guns. Total, 1,100 officers and officials, 43,000 men, 12,000 horses.

## THE CAVALRY CORPS.

It is intended to form cavalry corps of 2 or 3 cavalry or Cossack divisions each.

The projected formation in war is as follows: Two cavalry divisions, corps-supply transport.

## THE INFANTRY DIVISION.

Two infantry brigades; 3 squadrons cavalry; 1 artillery brigade: 1 park artillery brigade; 1 telephone section; 1 bridge park; 1 sapper company; division train; sanitary transport consisting of 1 disinfecting section, 2 field hospitals, 1 divisional hospital; supply transport. Fighting strength: 14,400 rifles; 450 sabers; 32 machine guns; 48 guns. Total strength: 500 officers and officials, 20,000 men, 4,900 horses. Proportion of cavalry and artillery in an infantry division at war strength: For every 1,000 rifles, 31 sabers, 3.3 guns.

*The infantry brigade.*—Two regiments of 4 battalions.

*The regiment.*—In peace as well as war, there are 348 infantry and rifle regiments with 1,252 battalions, out of which there are in Europe 280 regiments with 1,032 battalions; in Turkestan, 22 regiments with 44 battalions; and in Siberia, 44 regiments with 176 battalions. The infantry and the Siberian rifle regiments have 4 battalions of 4 companies each. The European and Turkestan rifle regiments only 2 battalions of 4 companies each. Each company has 4 platoons.

The men who are not called to the front, as for instance, scribes, gunsmiths, artisans, sanitary, veterinary, and men of the trains, are formed in peace and war into a separate noncombatant company; in regiments of 2 battalions, into a noncombatant detachment.

Each infantry and rifle regiment has a machine gun company of 8 guns, of which only 4 are in harness in peace.

In each regiment there are formed from the separate companies scouting and information detachments. The former (scouting) are not mounted in the European regiments, and consist, in a 4-battalion regiment, of 2 officers and 64 men. The Asiatic regiments in war all have mounted scouting detachments. In Siberia, they consist of 3 officers and 150 men.

The information detachments consist of the messengers (orderlies) and the telephone sections. The former section in a 4-battalion regiment consists of 1 noncommissioned officer, 12 mounted men, and 4 bicyclists. The telephone section has in peace 10 men, in war, 30 men, 2 horses, 2 carts. It can lay a distance of 10 kilometers. In addition, each company has 8 men trained as signallers. An infantry or a rifle regiment of 4 battalions has 3,600 rifles.

*The battalion.*—The typical battalion has 4 companies.

*The company.*—War strength, commanded by a captain, not mounted, 3 lieutenants, 20 noncommissioned officers, 217 men; total, 4 officers, 237 men. Normal peace strength, 3 or 4 officers, 7 noncommissioned officers, 2 drummers, 100 men.

*Machine-gun company.*—War strength, 3 officers mounted, 45 men, 30 horses, 4 pieces. Peace strength, 3 officers mounted, 25 men, 10 horses, 2 pieces. One company to each regiment.

The above from "Les Armées des Principales Puissances."

In 1913 it was reported that the machine-gun company had 8 guns in war and 4 in peace.

#### THE CAVALRY DIVISION.

Two brigades; 1 horse machine-gun company; 1 horse artillery section. Fighting strength, 3,600 sabers, 8 machine guns, 12 guns.

*The cavalry brigade.*—Two regiments of 6 squadrons each.

*The regiment.*—In peace and war there are 68 cavalry or "horse" regiments and 2 half regiments, with 404 squadrons and sotnias. The

4 guard cuirassier regiments have 4 squadrons each and the other cavalry regiments 6 squadrons.

The tactical unit of the cavalry is the squadron or sotnia of 4 platoons. The command unit is the regiment or half regiment.

The regiment has under its orders a mounted sapper detachment, consisting of 2 officers and 16 men, for the execution of technical work (destruction, telegraph service, construction of river crossings).

*The squadron.*—Five officers, 12 noncommissioned officers, 151 troopers. Each squadron and sotnia has a scouting detachment of 16 men specially trained as patrol leaders.

#### FIELD ARTILLERY.

*The brigade.*—Two groups of 3 batteries each, 48 guns.

*The battery.*—War strength, 6 officers, 21 noncommissioned officers, 180 men, 182 horses, 8 pieces.

## ENGLAND.

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The military forces of Great Britain fall under several categories. The principal of these are: The regular forces and the territorial forces. The regular forces are again divided into British forces—Indian forces and colonial forces. Exact data are not available for the native Indian forces; accordingly, this study will not take those forces up in the detail devoted to other forces.

In addition to the forces already enumerated, certain of the colonies—Canada, for example—maintain considerable forces of militia. As has already been indicated, exact data as to the number of men of the several arms are lacking for some of the various categories. Moreover, it is thought that the purposes of this study would be served by detailed statements of the British forces (regular). However, as the territorial forces are considerable and correspond more nearly to our militia forces than any other body maintained by a first-class power, a brief statement will be made of those forces.

### HIGHER ORGANIZATION.

The bulk of the British forces (regular) within the British Islands is organized into six divisions and four cavalry brigades (1 cavalry division).

The territorial force is organized as follows: Fourteen divisions (similar to those of the regulars), 14 mounted brigades, 14 field artillery brigades.

The forces in India, including regular and native, are divided into two armies. These armies contain a total of 9 divisions and 8 cavalry brigades.

The division in India is smaller than is usually the rule (about 13,000).

### REGULAR FORCES.

#### INFANTRY.

The battalion consists of 4 companies. Regiments exist, but as they are not used in practice they will not be considered here.

The battalion is commanded by a lieutenant colonel, the company by a major or captain.

Four battalions form a brigade, as a rule. There are 3 brigades to the division. There are 18 brigades stationed in the British Islands (it appears, however, from the estimates that only 17 brigades are provided with brigadier generals commanding). There are 27 brigades in India, counting native troops. There are 83 battalions stationed in the British Islands, 23 in the colonies other than India, and 52 in India, giving a total of 157 battalions of regular infantry. Battalions vary in strength according to stations, etc. At home the battalion usually numbers 24 officers and from 777 to 995 men; in the colonies, 28 officers and 904 men; in India, 29 officers and 1,081 men.

Cadres also exist for so-called "reserve battalions." There are 103 of these battalions, 27 of which are termed "extra reserve." The function of the reserve battalion, proper, is to supply men to fill up vacancies in the battalions. The "extra reserve" battalions may, if necessary, be mobilized in war—probably utilized on lines of communications.

The peace strength of the ordinary reserve battalion is 8 officers and 90 men; for the extra reserve, 6 officers and 30 men.

The total peace strength of infantry is as follows:

	Officers and men.
British Isles -----	76, 032
Colonies -----	21, 587
India -----	53, 642
Total -----	151, 261

The numbers for the British Isles include 1,368 officers and men for duty with the territorial forces; reference will be made to these and others for the various branches later on. The total number of infantry officers is 4,906.

The war strength of the battalion is 29 officers and 955 men, with an additional officer and 90 men left at the immediate base to fill up the first vacancies. Deducting attached sanitary troops, teamsters, etc., indicates the number of rifles available for the battalion firing line as about 860.

#### ARTILLERY.

The British artillery (all branches) is known as "The Royal Regiment of Artillery." The "regiment" is divided into "The Royal Horse Artillery," "The Royal Field Artillery," and "The Royal Garrison Artillery." The mistake is frequently made of considering the garrison artillery as coast artillery. As a matter of fact, a large portion of "The Royal Garrison Artillery" is field artillery. The explanation for this state of affairs is found in the well-known tenacity with which the English cling to traditions.



In the following the artillery has been grouped where it belongs. Even so, it is believed that too much has been assigned the coast artillery, as no account is taken of such of the garrison artillery as is serving as fortress artillery (land) or as, for example, legation guards at Peking, China.

REGULAR FIELD ARTILLERY.

The English field artillery, as is the case with their artillery in general, has a peculiar organization.

Batteries are commanded by majors, and contain 6 guns, except that heavy field gun batteries only have 4.

Batteries are grouped in "brigades" (battalions), commanded by lieutenant colonels. Here again there is an exception, as the heavy gun batteries are not "brigaded." "Brigades" are grouped under a general officer to form divisional artillery. Brigades are composed of 3 batteries, except for the horse artillery and for howitzers, in which 2 batteries form the brigade.

The group of "divisional artillery" contains: Four brigades (1 of which is equipped with howitzers), and 1 heavy gun battery—a total of 70 guns per division. Howitzer brigades are being increased to 3 batteries; this will give 76 guns per division. Cavalry divisions have 2 brigades, or a total of 24 guns.

There are in the British Isles 6 organized groups of "divisional artillery." The number of such groups in India is not definitely known, but is probably 9, corresponding to the number of divisions.

There are 14 "brigades" of horse artillery organized in time of peace, comprising 28 batteries. These batteries are stationed as follows:

	Batteries.
British Isles.....	14
Colonies other than India.....	3
India.....	11

In addition there is 1 "depot" and 1 "riding establishment," besides cadres of officers and men for forming 9 ammunition columns.

The peace strength of batteries varies according to three schedules, viz, higher, 5 officers and 170 men; lower, 5 officers and 139 men; Indian, 5 officers and 175 men. There are 6 batteries on the higher establishment, 8 on the lower, and 11 on the Indian. Batteries in colonies other than India are on a special establishment which is about the same as the Indian.

The "depot" contains 5 officers and 201 men, the "riding establishment" 6 officers and 129 men. For cadres of ammunition columns there are maintained in peace 17 officers and 174 men.



The total number of horse artillery is as follows:

	Officers and men.
British Isles.....	3, 074
Colonies other than India.....	531
India.....	1, 923
Grand total.....	5, 528

There are 50 brigades of light artillery organized in time of peace, comprising 150 batteries. In addition there are 9 batteries of mountain artillery and 12 batteries of heavy field artillery. The total of the light, mountain, and heavy is thus 171 batteries. Although the mountain and heavy artillery is not carried in the station list as organized in "brigades," staffs exist for such organizations at the rate of 3 batteries to the brigade. In addition the mountain artillery is organized as a "division." There are also 6 "depots."

The strength of batteries varies. In the light artillery there are 21 batteries, with 5 officers and 164 men each, 66 with 5 officers and 137 men each, 18 with 4 officers and 87 men each, 33 with 5 officers and 174 men each, 9 with 5 officers and 147 men each, and 3 with 5 officers and 179 men each.

The "depots" each have 4 officers and 192 men.

There are also 13 ammunition columns, each having a strength of about 4 officers and 60 men.

Combining all the field artillery, including horse, we have its stations and numbers as follows:

	Batteries.	Officers and men.
British Isles.....	119	19, 087
Colonies (other than India).....	9	1, 383
India.....	71	14, 179
Total.....	199	34, 649

In addition there are in England 12,000 special reserves for the field artillery. This personnel is handled by the "training batteries." In war it brings the units up to war strength and may form new units.

The war strength of batteries is as follows: Horse batteries, 5 officers and 203 men; horse artillery light ammunition column, 4 officers and 214 men; "brigade" of horse artillery (headquarters, 2 batteries, and light ammunition column), 17 officers, 1 medical officer, 668 men, 12 guns. In addition 1 officer and 63 men are left at the immediate base as a first reinforcement.

Field batteries, light, have 5 officers and 193 men. Light ammunition column, 5 officers and 302 men.

The "brigade" of light artillery (headquarters, 2 batteries, and light ammunition column), 24 officers, 1 medical officer, 939 men, 18 guns. In addition 1 officer and 89 men are left at the immediate base as a first reinforcement.

The howitzer brigade (2 batteries, 12 guns, and light ammunition column) has a total of 24 officers, 1 medical officer, and 533 men. In addition 1 officer and 51 men are left at the immediate base.

The heavy field gun battery has 4 guns and a light ammunition column, with a total of 6 officers and 224 men. In addition 22 men are left at the immediate base.

The divisional ammunition column carries both artillery and small arms ammunition. It has a total of 19 officers, 1 medical officer, and 809 men. In addition 1 officer and 79 men are left at the immediate base.

#### REGULAR SIEGE ARTILLERY.

There are 3 companies, organized as a brigade, with a total of 20 officers and 608 men. These companies are all stationed in the British Isles.

The war strength of a battery of siege artillery varies between 5 officers and 124 men and 5 officers and 181 men, with additional men at the base, etc.

#### REGULAR COAST ARTILLERY.

As has been stated, this paper considers all of that portion of the "Royal Regiment of Artillery" not definitely known as field or siege artillery to be coast artillery. As a matter of fact, as has also been indicated, this is believed to be too great an allowance for the coast artillery. However, the figures are:

	Companies.
British Isles.....	34 and 4 "de- pots."
Colonies (exclusive of India).....	26
India.....	21

The "colonies other than India" include Gibraltar, Malta, Aden, Singapore, Hongkong, Capetown, and Bermuda, not to mention less important places.

The peace strength of companies varies greatly. Some have 4 officers and about 100 men, while others have as high as 7 officers and 230 or more men.

The total number of companies and strength on a peace footing is shown below.

	Companies.	Officers and men.
British Isles.....	34	6,578
Colonies (other than India).....	26	5,236
India.....	21	3,151
Total.....	81	14,965

In addition there are 43 officers and 1,440 men in the special reserve for that portion of "The Royal Regiment of Artillery" known as Garrison Artillery. The numbers of these belonging to the several classes of artillery are not definitely known.

## REGULAR CAVALRY.

As a rule regiments have 3 squadrons, the so-called "Household Cavalry" (3 regiments) have 4 squadrons to the regiment. It is understood that eventually there will be a "depot" for each regiment, but at present there are only 6 such organizations for the entire cavalry. The squadron conforms to the troop in the United States in that it is the lowest administrative unit, etc. It counts about 150 sabers in war and is commanded by a major—in this it follows the precedent set by the English field artillery.

There are, as a rule, 3 regiments to the brigade.

Four brigades in the British Isles are organized in peace, with probably 3 in India.

The total number of regiments is 31, with a total of 99 squadrons and 6 "depots."

The peace strength of regiments is as follows: Household regiments, 24 officers and 408 men; regiments of the line at home, 23 officers and 673 men; colonies, 23 officers, 569 men; India, 27 officers, 594 men. The apparent reduction on foreign service is due to the fact that a small nucleus of men is left at home. This will not be the case after all regiments are provided with "depots."

Two depots each have 6 officers and 103 men; the other 4 each have 5 officers and 82 men.

The location and number of regiments and of officers and men is as follows:

	Regiments.	Officers and men.
British Isles.....	17	12,077
Colonies (other than India).....	5	3,023
India.....	9	5,616
Total.....	31	20,716

In addition there are 934 special reserves.

The war strength of cavalry is as follows: Squadron, 6 officers and 151 men, of whom probably 145 may be counted as sabers. The regi-

ment has 3 squadrons, with a total strength of 24 officers, 1 medical officer, and 528 men. The strength in sabers of the regiment is about 475. In addition to the above figures 1 officer and 52 men are left at the immediate base as a first reinforcement.

## REGULAR TECHNICAL TROOPS.

Technical duties, which in the United States pertain to the Engineers and to the Signal Corps, are performed by the Royal Engineers.

The company is the unit of organization, but higher officers than company commanders exist in due proportions.

The peace strength varies so greatly that no attempt is made to give details.

The following shows the number of officers and men and their distribution (10 depots and the permanent staff of the territorial force are included in the figures):

	Officers.	Men.
British Isles.....	501	6,844
Colonies (other than India).....	178	2,249
India.....	376	3
Total.....	1,055	9,096

In addition there are 1,287 special reserves.

The war strength of engineers varies according to duty. The minimum strength of companies is about 3 officers and 106 men, the maximum 6 officers and 386 men.

## ROYAL FLYING CORPS.

Military section: Consists of a staff, 7 aeroplane squadrons of 12 machines each, forming 3 groups of 4 machines, 1 dirigible squadron, 1 repair shop per squadron, 1 commander, 12 pilot officers, 13 non-commissioned officers. Also a replacement personnel. Total per squadron: Nineteen officers, 23 mechanics, 14 noncommissioned officers, 153 men.

## REGULAR TRAIN TROOPS.

The army service corps supplies transport, provisions, fuel, and light to the army, and also has duties in connection with barracks, etc.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	356	5,604
Colonies (other than India).....	100	712
India.....		
Total.....	456	6,316

There are in addition 1,000 men of the special reserve.

The war strength of the army service corps is not definitely known, but is very large.

## REGULAR SANITARY TROOPS.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	547	3,159
Colonies (other than India).....	157	882
India.....	324	.....
Total.....	1,028	4,041

In addition there are 1,000 men of the special reserve.

The war strength is not known.

## REGULAR VETERINARY CORPS.

The peace strength is as follows:

	Officers.	Men.
British Isles.....	83	142
Colonies (other than India).....	20	81
India.....	61	.....
Total.....	164	223

## GENERAL REMARKS ON REGULAR FORCES.

The study of England's forces now as compared to their condition before the Boer War reveals a vast advance.

Especially noteworthy are the measures she has taken to secure trained reserves for filling up her units on mobilization and the provision of officers and men of the regular service for duty with the territorial forces. On this duty there are 592 officers, 16 warrant officers, 2,302 sergeants, and 27 musicians and privates.

## CONDITIONS OF SERVICE, REGULAR ESTABLISHMENT.

Service is voluntary. The enlistment period is usually for 12 years, of which a certain portion is passed with the colors and the remainder in the reserve. Service with the colors is usually 3, 7, or 8 years, depending on the arm of the service and other conditions.

## TERRITORIAL FORCE.

As has already been mentioned, the territorial force more nearly corresponds to the Organized Militia of the United States than does any other foreign force.



The territorial force does not serve beyond the limits of the British Islands, except by its own consent.

Its organization corresponds exactly with that of regular divisions in so far as the proportions of the several arms is concerned. The total strength of units is, however, smaller. The total strength of a regular division is 21,600, whereas that of the territorial division is about 16,950. Since the proportion of the several arms is the same, the detailed composition is not considered here. There are organized in time of peace 14 divisions and 14 mounted brigades, besides certain units of coast artillery, etc. The total of the territorial force is 315,408.

#### COLONIAL TROOPS.

All of the colonies maintain bodies of native troops. Exact data as to the numbers and distribution among the several arms are lacking. In general, it may be said, however, that such forces are strong in infantry and police and weak in the other arms.

India has a native army of some 162,000 men, a portion of whom could be used outside of India.

The Canadian forces are divided into permanent and active militia. The combined peace strength of these two forces is as follows:

	Officers and men.
Infantry.....	52, 290
Field artillery.....	4, 629
Garrison artillery.....	2, 287
Cavalry.....	12, 622
Engineers.....	1, 900

78,350 represents authorized strength.

Actually, the numbers are somewhat below those figures.

In addition there are reserves, under various names, to the number of 39,346. The law permits conscription both in peace and war.

The artillery listed as "garrison artillery" is probably two-thirds heavy field.

*Permanent force.*—One regiment infantry; 1 squadron mounted rifles; 2 squadrons dragoons; 2 horse batteries; 5 companies garrison artillery; 2 companies engineers: 5 train detachments, 3,520 men.

The active militia, 90 battalions infantry, of from 6 to 12 companies each, usually 8; 25 regiments of cavalry of from 4 to 5 squadrons each, usually 4; 10 brigades artillery of from 2 to 3 batteries each and a munition column; 3 independent batteries; 3 regiments garrison artillery of from 3 to 4 companies; 1 battery heavy artillery; engineers, 4 field companies and 1 field telegraph section; train, 8 companies; total, 73,350.

In mobilization, the active militia will form 20 brigades of infantry, at 4 battalions each, 4 brigades of cavalry of 3 to 4 regiments each. It will mobilize at 114,000 men.



Australia and New Zealand have compulsory military training; the Australian force is permanent, 2,909; citizen soldiers, 42,261. With volunteers, rifle clubs, cadets, etc., there is a total force of about 182,000. In New Zealand the force amounts to about 30,000 men.

## PEACE STRENGTH, OCT. 1, 1913.

## Regular army:

British establishment.....	170,722
Indian establishment (British troops in India).....	76,528
Army reserve:	
Regular reserve.....	145,000
Special reserve.....	61,427
Territorial forces.....	246,600
Territorial force reserve.....	1,669
<hr/>	<hr/>
Total, including staff, depots, and miscellaneous.....	707,466

The Indian army is not included in the above.

## WAR STRENGTH.

It is difficult to estimate the war strength of Great Britain. In doing so, her large colonies of Canada and Australia must be considered, as they have always sent men to the defense of the Mother Country.

In the war in South Africa, 1899-1902, Great Britain disposed, during the entire war, of 448,495 men, distributed as follows:

Total from home.....	337,219
Total from India.....	18,534
Total from colonies.....	30,328
Raised in South Africa.....	52,414
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Total.....	448,495

The population of Great Britain (England, Scotland, Ireland, Wales) is 45,370,530; of Canada, 7,206,643; and of Australia, 4,836,625. She has the material to raise a vast army, given time and necessity.

## ADMINISTRATION.

Commander in chief: The King.

The committee of defense: The prime minister is the presiding officer. Studies questions of defense and military and naval measures necessitated by political conditions.

## WAR OFFICE.

The command and the administration of the army is controlled by the war office, at the head of which is the secretary of state for war, assisted by his cabinet.

## THE GENERAL STAFF.

The general staff, under the direction of the chief of staff, is divided into three bureaus. The chief of staff acts under the minister of war. The three bureaus of the general staff are (1) military operations, (2) director of staff duties, (3) director of military training.

## ORGANIZATION.

Great Britain is divided into 8 military commands, viz, Camp of Aldershot, south, east, north, west, Scotland, Ireland, and London. Aldershot is the station of the expeditionary force. There can be mobilized a force of 6 infantry divisions, 1 cavalry division, 2 brigades mounted infantry, and the necessary auxiliary troops, of an approximate total of 160,000 men.

## THE DIVISION.

Headquarters, 3 infantry brigades, 1 headquarters divisional artillery, 3 field artillery brigades, 1 field artillery (howitzer) brigade, 1 heavy battery and ammunition column, 1 divisional ammunition column, 1 headquarters divisional engineers, 2 field companies engineers, 1 signal company engineers, 1 cavalry squadron, 1 divisional train, 3 field ambulances. Total strength, 18,073 officers and men, 5,592 horses.

Fighting strength, rifles, 11,676; sabers, 150; guns, 76; machine guns, 24.

## THE INFANTRY BRIGADE.

Consists of 1 headquarters; 4 battalions.

Proportion of cavalry and artillery to an infantry division: For every 1,000 rifles, 12.8 sabers, 6.5 guns.

*The regiment.*—Great Britain has 73 infantry regiments. Each regiment formerly consisted of one or more battalions of 8 companies each. There are 157 of these 8-company battalions of which 83 are stationed in Great Britain proper, 22 in the colonies, and 52 in India. The battalions of a regiment are entirely separated for command but have a common depot.

A special army order issued from the war office authorizes the adoption as from October 1, 1913, of the 4-company organization in battalions of the foot guards and infantry of the line. The text of the order is as follows:

*Organization of an infantry battalion.*—(a) A 4-company organization will be adopted in battalions of the foot guards and in all regular battalions of infantry of the line serving at home or in the colonies, with effect from October 1, 1913.

(b) The noncommissioned officers and men of the machine-gun section and the personnel will be distributed for discipline and administration in peace amongst the four companies under regulations to be issued later.

(c) Each company will be commanded by a mounted major or a mounted captain, with a captain as second in command.

(d) A company is divided into 4 platoons, each commanded by a subaltern in so far as the number of subalterns available will allow. When a subaltern is not available to command, his place should be taken by a senior noncommissioned officer, who should usually be the senior noncommissioned officer belonging to the same platoon. Each platoon will be subdivided under regulations to be issued later.

(f) The companies will be designated by the letters A, B, C, D. The platoons will be numbered consecutively throughout the battalion from 1 to 16.

This organization does not apply to the regiments in India.

*The battalion.*—Headquarters, 1 lieutenant colonel, 1 major, 1 adjutant, 1 quartermaster, 1 transport officer (detailed from subalterns), 1 sergeant major, 1 quartermaster sergeant, 1 clerk, 1 sergeant drummer, 1 sergeant cook, 1 transport sergeant, 1 sergeant shoemaker, 11 drivers (first line transport), 6 batmen, 1 pioneer sergeant, 10 pioneers, 1 signaller sergeant, 1 signaller corporal, 15 signaller privates, 16 stretcher bearers, 2 orderlies for medical officer. Attached: 1 officer, 8 privates, medical corps, 2 armorers, 4 drivers army service corps, train transport, 1 machine gun section, 4 companies.

*The machine-gun section.*—1 subaltern, 1 sergeant, 1 corporal, 12 privates, 2 drivers (first line transport), 1 batman, 2 guns.

*The company.*—War strength: Commanded by a major (or captain) mounted, 1 captain second in command, 4 subalterns, 1 company sergeant major, 1 company quartermaster sergeant, 8 sergeants, 4 drummers or buglers, 10 corporals, 188 privates, 3 drivers (first line transport), 6 batmen. Total, 6 officers, 221 other ranks.

#### THE CAVALRY DIVISION.

One headquarters, 4 cavalry brigades, 1 headquarters cavalry divisional artillery, 2 horse artillery brigades, 1 field squadron, 1 signal squadron, 1 headquarters cavalry divisional army service corps, 4 cavalry field ambulances. Total strength, 9,269 men; 9,815 horses. Fighting strength, 6,269 sabers, 24 guns, 24 machine guns.

*The cavalry brigade.*—Consists of 3 cavalry regiments and 1 signal troop. Smaller units of the different arms of the service.

*The regiment.*—One lieutenant colonel, 1 major, 1 adjutant, 1 signaling officer, 1 quartermaster, 1 regimental sergeant major, 1 quartermaster sergeant, 1 transport sergeant, 1 clerk, 1 sergeant

trumpeter, 1 sergeant cook, 1 signaling sergeant, 1 farrier quartermaster sergeant, 1 saddler sergeant, 1 saddletree maker, 5 signalers, 2 orderlies for medical officer, 7 drivers, 13 batmen. One machine-gun section, 3 squadrons.

There are 31 regiments of regular cavalry, 19 stationed in the United Kingdom, 3 in the colonies, and 9 in India.

*The squadron.*—War strength: One major, 1 captain, 4 subalterns, 1 squadron sergeant major, 1 squadron quartermaster sergeant, 8 sergeants, 1 farrier sergeant, 1 shoeing smith corporal, 3 shoeing smiths, 1 saddler, 2 trumpeters, 8 corporals, 104 privates, 3 signalers, 6 drivers, 12 batmen. Total, 6 officers, 151 other ranks, 153 riding horses, 2 pack, 12 draft.

#### FIELD ARTILLERY.

*The brigade.*—Headquarters, 23 officers, 772 men, 748 horses. Consists of 3 batteries, each of six 18-pounder quick-firing guns.

The field artillery howitzer brigade consists of 3 batteries, each of six 4.5-inch quick-firing howitzers, 22 officers, 755 men, 697 horses.

The heavy artillery battery and ammunition column consists of four 60-pounder B. L. guns, 6 officers, 192 men, 144 horses.

*The battery.*—A horse artillery battery, including ammunition column, has six 13-pounder quick-firing guns, and consists of 9 officers and 330 men. A field artillery battery has six 18-pounder quick-firing guns, and consists of 5 officers, 193 men, and 172 horses.

#### PROMOTION.

By seniority in the corps up to and including the grade of major; by selection above the grade of major.

## ITALY.

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The Italian military system is complicated. It is composed of the regular army, the mobile militia, and the territorial militia. The two latter categories are not constantly under arms and in reality form a kind of reserve (Landwehr) into which men pass after service with the colors. Both the mobile and the territorial militia are composed of all arms of the service. The available data as to the strength of the militia are so conflicting as to make it impossible to give any reliable figures as to the composition and strength of the several arms of the service in those forces.

For these reasons this study will confine itself to the regular army and will consider the militia only as a reserve for bringing units up to strength on mobilization.

Moreover, there is a system in vogue of giving extensive (unlimited) periods of leave to the men so that the full number provided by the budget is always short (in men *actually* with the colors) by several thousand. The figures as to the total strength of the several arms are, therefore, to be regarded as approximate. Nevertheless, the figures given offer an approximation to the relative strength of the several arms.

### HIGHER ORGANIZATION.

Commanders and staffs for four armies exist in time of peace.

There are 12 army corps, 25 divisions, and 3 cavalry divisions organized in peace.

### INFANTRY.

The typical formations are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division. Battalions of "Bersaglieri" and "Alpine troops" have 3 companies each, while regiments of these troops have 3 or 4 battalions.

There are 51 brigades, 116 regiments, 389 battalions.

Each regiment has a "depot."

The total number of infantry officers is 7,891.

A close approximation to the total number of officers and men of infantry is 162,000 for the peace footing.<sup>1</sup>

The war strength of units is difficult to estimate. A considerable part of the infantry is composed of cyclists and of Alpine troops.

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<sup>1</sup> In Europe.



The war strength of these organizations runs from 120 to 150 men per company. On the other hand, the infantry of the line probably numbers 250 men to the company.

#### ARTILLERY.

All artillery officers are on one list.

The main subdivisions are the field artillery and the fortress artillery. The latter is composed of coast artillery and of fortress (land) artillery proper.

Dividing the artillery among the several classes, we have:

#### FIELD ARTILLERY.

There are 36 regiments of field artillery, with 72 battalions, 193 4 to 6 gun batteries, 36 train companies, and 36 depots (train companies form light ammunition columns). There are 2 regiments of heavy field artillery, with 10 battalions, 20 batteries, and 2 depots.

There is 1 regiment of horse artillery, with 4 battalions, 8 batteries, 4 companies of train, and 1 depot.

There are 2 regiments of mountain artillery, with 8 battalions, 24 batteries, and 2 depots.

Totaling the above, we have: Forty-one regiments, 90 battalions, 263 batteries, 40 train companies (light ammunition columns), 41 depots.

At least a portion of the depots are used in connection with the mobile militia. In addition to the above, there are various remount establishments, "directorates," etc. These organizations are fixed under the law by royal decree, but no definite data are available. It will be seen that, deducting 6 batteries for the 3 cavalry divisions, about 20 batteries are available for each of the 12 army corps.

If the heavy batteries have 6 guns each, the number of guns per corps would be about 120.

The peace strength of batteries is not definitely known. The Italian artillery is being rearmed with modern guns and the strength of organizations somewhat increased.

Under the old organization the strength of batteries varied between 3 officers and 90 men and 4 officers and 141 men.

The total peace strength is about 34,000 officers and men and is probably being increased.

The war strength at least for the new matériel, 4 officers, 152 men.

#### COAST AND FORTRESS ARTILLERY.

There are 10 regiments of coast artillery.

The peace strength of companies is 3 officers and 107 men. The total peace strength of the coast artillery, including headquarters detachments, is about 5,000 officers and men.

The war strength of companies is 5 officers and 200 men.

The total peace strength of fortress artillery, including detachments, is about 6,500 to 7,000 officers and men.

According to Veltze, matériel exists at Alessandria, Mantua, and Piacenza for forming 3 groups of 9 batteries each of mobile artillery.

#### CAVALRY.

There are 8 brigades with 29 regiments and a certain number of depots.

The total number of cavalry officers under the new law is 985.

In peace each regiment has 5 squadrons with a nominal strength of 4 officers and 155 men each. The total peace strength is thus about 27,000 officers and men.

It appears that in war each regiment would have 6 squadrons with 5 officers and 133 men each, counting 120 sabers.

#### TECHNICAL TROOPS.

The engineers have various establishments, headquarters, etc.

There are 6 regiments, 24 battalions, 79 companies, 6 depots. The total number of engineer officers is 610.

The peace strength varies, the usual strength is 3 officers and 110 or 120 men per company.

The total peace strength is about 11,000 officers and men.

In war, companies have from 200 to 250 officers and men.

#### SUPPLY TRAIN.

There is one company for each of the 12 army corps. The total peace strength is about 2,500 officers and men. The war strength is unknown.

#### SANITARY TROOPS.

The law provides 763 medical officers and 12 companies of varying strength—about 5,600 officers and men.

#### GENDARMES.

The police might, in war, be employed to a limited extent. Some authorities go so far as to think they would all be so employed. They actually form an integral part of the army.

There are 12 so-called legions, with 671 officers and about 26,000 men. About 4,000 of these men are mounted. The remainder are dismounted. It is probable that in war the carbineers would mobilize one infantry brigade, numbering about 7,000 officers and men.

## GENERAL REMARKS.

In addition to the troops enumerated there are numerous special formations, schools, etc.

As has already been indicated, many of the "depots" are supposed to be used in connection with the mobile militia.

For example, it is supposed that no fewer than 672 officers and 8,640 men of the regular infantry, already enumerated, are used for the mobile militia.

## TOTAL PEACE STRENGTH.

The total peace strength of the regular army is 305,000.

## TOTAL WAR STRENGTH.

The complex system and the custom of giving indefinite leave to untrained men render it difficult to estimate Italy's strength in fully trained men. On paper she could mobilize 3,500,000 men. A conservative estimate would seem to be 1,300,000 *fully trained* men.

## COLONIAL TROOPS.

In addition to the troops already mentioned, Italy maintains in her African possessions 132 officers and 4,530 men; of the latter, 660 are Italians and the remainder natives.

## CONDITIONS OF SERVICE.

Service is compulsory, and liability extends from the twentieth to the thirty-ninth year of the citizen's life. Service with the colors is nominally for three years, but as the budget is seldom sufficient, many men are released with one or two years' training. These pass from the colors to a form of leave status, in which they serve to complete a total period in the regular army of eight or nine years.

The men then pass into the mobile militia, from whence they go into the territorial militia. During their stay in the category of the "cong  illimit ," as well as in the militia, the men are subject to calls for instruction—30 days per year for the leave status and mobile militia, 30 days in 4 years for territorial militia.

*Peace and war strength (trained men), budget of 1912.*

[The figures are difficult to verify.]

	Infantry.	Cavalry.	Artillery.		Other arms and departments.	Other trained men available.	Total.
			Men.	Guns.			
Peace <sup>1</sup> .....	134,860	26,000	40,600	1,480	49,400	.....	252,340
War <sup>2</sup> .....	<sup>3</sup> 566,000	<sup>3</sup> 18,000	<sup>3</sup> 39,000	42,320	<sup>3</sup> 77,000	<sup>5</sup> 400,000	1,100,000

<sup>1</sup> Budget strength, 1912.<sup>2</sup> Active army and mobile militia.<sup>3</sup> Approximate strength of men of the active army and mobile militia incorporated in mobilized units at war establishment.<sup>4</sup> Two thousand and eighty-six field guns and 234 mountain guns.<sup>5</sup> Trained territorial militia; in addition, about 1,500,000 totally untrained men are enrolled in the territorial militia.

*Composition of the forces.*—(a) The active army, (b) the mobile militia, (c) the territorial militia, (d) the volunteer corps, (e) customs guards, (f) colonial troops.

Recruits fit for service are divided into three categories. The terms of service in each category are shown in the following table:

Categories.	Active army with the colors.	On permanent furlough.	Mobile militia.	Territorial militia.	Total.
First.....	2	6	4	7	19
Second.....		8	4	7	19
Third.....				19	19

The strength of the various categories varies every year.

The third category is for those men among the recruits who are exempt for family reasons from military service.

Men on permanent furlough or militiamen of all classes are liable to be called out for periodical terms of training. The number called out depends upon financial considerations.

Per cent of peace strength of army to total population:

Population (census, June, 1911).....	34,947,865
Peace strength.....	250,860
Per cent.....	0.69+
Annual appropriation (1913-14).....	\$82,927,703

Of which about \$7,800,000 was for increased expenses in Tripoli.

## ADMINISTRATION.

Commander in chief, the King.

The supreme commission of defense of the state, which studies questions of defense and arranges the cooperation of the army and navy.

The council of the army, which studies questions of the army.

The ministry of war, which comprises 7 bureaus of administration, viz. general affairs, personnel, civil personnel and pensions, logistics and supply, etc., artillery and engineers, recruiting and troops, revision of accounts.

The general staff.

The general inspections, which provide the instruction and technical direction of special branches of the service.

#### ARMY COMMANDS.

There are four designated army commands, whose commanders are designated in peace time, but their duties are confined to the inspection and supervision of the groups of corps that they would command in war.

In time of war an army consists approximately of 1 major general, chief of staff; 1 staff colonel; 1 major; 3 staff captains; 3 aids-de-camp. Intendance, 1 major general, army intendant; 1 colonel, chief of intendant staff; 2 staff captains; 1 aid-de-camp.

*Troops, etc.*—Three to four corps, 1 cavalry division, 1 detachment heavy artillery, 2 bridge trains, 1 telegraph company, 1 balloon park, 1 electric light park, 1 artillery park, 1 engineer park, 15 field hospitals, 1 advance depot medical materials, 1 field bakery, 1 subsistence park, 1 clothing depot, 1 remount depot.

#### ARMY CORPS.

There are 12 army corps. The corps is commanded by a lieutenant general. His staff consists of 1 colonel; 1 lieutenant colonel; 1 captain; 2 captains, attached; 1 veterinary officer; 1 transport officer; 1 aid.

The army corps commander decentralizes some of his authority to the artillery and engineer commands, and is further assisted by directors of the medical, commissariat, and veterinary services. These directors act as technical advisers to the army corps commander, and are responsible for the proper working of their departments.

In war the component parts of an army corps are 2 infantry divisions of the active army, 1 infantry division of the mobile militia, 1 regiment of Bersaglieri, 1 regiment of cavalry, 1 regiment of field artillery containing 2 groups each of 2 batteries with 6 guns to the battery (36 guns),<sup>1</sup> 1 telegraph company and park, 1 corps artillery park, 1 ammunition column, 1 engineer park, 1 supply ambulance company, 4 field hospitals, 1 supply column, 1 reserve supply park. Approximate strength, 50,000 men, 8,400 horses, 126 guns.

<sup>1</sup> A few regiments have 4 gun batteries.



## INFANTRY DIVISION.

There are 24 active divisions and 12 of mobile militia, each commanded by a lieutenant general.

Staff: One lieutenant colonel, 1 or 2 staff captains, 2 or 3 attached staff captains, 1 orderly officer, representatives of medical and commissariat services.

In war a division consists of 2 infantry brigades, each of 2 regiments, total 12 battalions; 1 regiment of field artillery containing 2 groups, one of 2 and one of 3 batteries, with 6 guns to the battery, total 30 guns; 1 company of engineers, 1 bridging section (44 yards of bridge); 1 telephone park (25 units line and 16 stations); 1 divisional ammunition column, 1 field ambulance, 1 supply section. Approximate strength, 14,200 men, 1,400 horses, 30 guns.

Proportion of cavalry and artillery in infantry division at war strength: For every 1,000 rifles, no sabers, 2.5 guns.

*The brigade.*—The 96 regiments of infantry are organized in 48 brigades.

*The regiment.*—The infantry of the line consists of 2 regiments of grenadiers and 94 regiments of the line; the regiments are composed for the most part of 3 or 4 company battalions, a machine-gun section, and a depot for the regiment and one for the mobile militia; 24 regiments have a fourth battalion, but these units are being used as part of the colonial army, and do not alter the composition of the regiments in Italy.

The Bersaglieri consist of 12 regiments of light infantry recruited from selected men of good physique. Each regiment except three consists of 3 battalions, 1 cyclist battalion, and a depot. Each infantry and cyclist battalion has 3 companies. The excepted regiments have 4 battalions.

The Alpini regiments are 8 in number, divided into 26 battalions, 78 companies, 26 machine-gun sections, 26 nuclei for mobile militia, and 8 depots.

The infantry regiment is organized as follows: Headquarters, 1 colonel, 1 lieutenant colonel or major at the depot, 1 lieutenant colonel or major at nucleus for militia mobilization, 3 or 4 captains, 3 captains at nucleus for militia mobilization, 1 captain at depot, 3 lieutenants, 3 lieutenants at nucleus for militia mobilization, 2 captains (medical officers), 1 bandmaster, 3 battalions, 12 companies, 1 machine-gun section, 1 depot, 1 nucleus for militia mobilization.

War establishment: Each battalion, 24 officers, 1,019 men, 15 horses, 5 wagons. The regiment, 78 officers, 3,113 men, 63 horses, 18 wagons. The battalion, 24 officers, 1,019 men, consists of 4 companies. The company, commanded by a captain, mounted, in peace

varies in strength, but averages 3 officers and 75 men; in war, 5 officers, 250 men, 1 horse.

*Machine guns.*—One section to each regiment of infantry, cavalry, and Bersaglieri, and to each battalion of Alpini. The war strength of a section for infantry is 1 officer, 26 men, 16 pack or draft animals, 2 guns, 1 small-arms ammunition cart, 1 baggage cart.

#### THE CAVALRY DIVISION.

Commanded by a lieutenant general or major general. The staff: One colonel, 1 captain, assisted by representatives of the medical and commissariat services. In war a cavalry division is composed of 2 brigades of cavalry, each of 2 regiments of 5 squadrons each, a total of 20 squadrons; 1 group of horse artillery, 2 batteries of 4 guns each, a total of 8 guns; 1 battalion of cyclist Bersaglieri; 1 cavalry ambulance company; 1 supply section; 1 bridging section (44 yards of bridge); 1 divisional ammunition column. Approximate strength, 4,200 men, 4,200 horses, 8 guns.

*The regiment.*—Headquarters: One colonel or lieutenant colonel, 1 lieutenant colonel or major, 1 lieutenant colonel or major at depot, 1 or 2 captains, 1 captain at depot, 1 lieutenant, 4 or 5 lieutenants, 2 medical officers, 1 administrative officer, 2 veterinary officers, 5 squadrons, 1 depot, 1 mounted machine-gun section. There are 29 regiments, 4 heavy cavalry, 8 lancers, 17 light cavalry. A regiment has from 36 to 39 officers, 908 other ranks, 790 horses.

*The squadron.*—War strength: Four officers, 165 other ranks. 150 horses.

#### FIELD ARTILLERY.

*The regiment.*—Commanded by a colonel or lieutenant colonel. Groups and depots are commanded by lieutenant colonels or majors. Batteries and transport companies are commanded by captains. The staff includes 2 medical and 2 veterinary officers. There are 2 groups of batteries and 1 transport company, and 1 depot to a regiment.

The first 12 regiments, each of 6 batteries divided into 2 groups, form the corps artillery of the 12 army corps; the remaining 24 regiments constitute the divisional artillery of 24 of the 25 divisions.

Regiments of divisional artillery are formed of 2 groups, one of 3 and one of 2 batteries.

The 36 depots each contain regular cadres for one mobile militia battery. The depots when reenforced by men of the mobile militia are expected to furnish 63 batteries in case of mobilization.

The artillery is composed of the following units: One regiment of horse artillery, 36 regiments of field artillery, 2 regiments of heavy field artillery, 2 regiments of mountain artillery, 10 regiments of fortress artillery.

*The battery.*—War footing: Four officers, 152 other ranks, 122 horses, 6 guns. (Some batteries have 4 guns only.)

## PROMOTION.

By selection and seniority. Second lieutenants are promoted after three years of service to first lieutenantcies. From first lieutenant to captain, one-fourth by selection, three-fourths by seniority, all subject to examination. Lieutenants are promoted to captaincies, even if there are no vacancies in that grade, after 15 years' service as officers. Promotion to the grades of major and lieutenant colonel by seniority exclusively. From the grade of colonel exclusively by selection.

## MEXICO.

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The Mexican Army has been disorganized by the various revolutions in late years. The data below show it approximately as it existed at the time President Porfirio Diaz left office.

### HIGHER ORGANIZATION.

There is no organization, at present, higher than the regiment in time of peace. Divisional organization is said by some authorities to be in contemplation.

### INFANTRY.

All organization in Mexico is somewhat peculiar. The underlying idea of Mexican organization is to arrange for the maximum possible expansion in war.

The battalion has 4 companies. Regiments of infantry do not exist in peace, but battalions are commanded by colonels, with a full regimental staff. In war each battalion forms an additional battalion, thus constituting a regiment of 2 battalions.

In peace there are 34 battalions; in addition there are 4 skeleton battalions (2 companies each) and 2 regional companies.

The peace strength of the company proper is 9 officers and 145 men.

The total infantry strength in peace is 1,182 officers and 19,144 men.

The war strength of regiments is 47 officers and 1,745 men. The exact number of rifles in the regiment is unknown. The total infantry strength in war is 3,100 officers and 53,706 men.

### FIELD ARTILLERY.

The artillery in peace has 2 batteries to the battalion and 2 battalions to the regiment: There are in peace 2 regiments (8 batteries) of mountain artillery, 1 regiment (4 batteries) of horse artillery, 2 regiments (8 batteries) of light artillery. The total number of batteries on the peace footing is therefore 20, with, in addition, the skeleton organization just referred to. Batteries each have 6 guns, except horse batteries, which have 4.

The peace strength of batteries varies between 6 officers and 79 men and 8 officers and 120 men, except that mountain batteries each

have 10 officers and 88 men. The total peace strength is 1,912 officers and men.

The expansion in batteries on mobilization is as follows: The mountain artillery doubles, other regiments each form 2 additional batteries. The "squadron" is doubled in personnel and has 32 guns.

The total war strength is 3,142, with 176 guns.

In addition, there are ammunition columns, the strength of which is not known.

#### COAST ARTILLERY.

There are a few minor and unimportant detachments of coast artillery. No definite data are available.

#### CAVALRY.

In peace 4 troops form a regiment at full peace strength, and 2 troops form a regiment at skeleton strength.

Troops have two peace footings—skeleton and full peace. The respective footings are 6 officers and 72 men and 8 officers and 105 men.

There are 14 regiments and 4 skeleton regiments.

The total peace strength is 496 officers and 6,822 men.

In war each regiment has 6 troops.

The war strength of troops is 5 officers and 140 men: the exact number of sabers counted is not known.

The total war strength is 548 officers and 14,016 men.

#### TECHNICAL TROOPS.

There are a number of miscellaneous organizations, totaling 56 officers and 601 men, including 1 battalion of engineers.

The war strength is about 100 officers and 1,000 men.

#### TRAIN.

The peace strength is 9 officers and 206 men. The war strength is not known.

#### SANITARY TROOPS.

One company.

#### REMARKS ON TROOPS.

In addition to the troops noted, there are 12 regiments of rurales (police) of 250 men each. There are also some miscellaneous organizations.

#### TOTAL PEACE STRENGTH.

The total peace strength is 32,000.



## TOTAL WAR STRENGTH.

Aside from new organizations, Mexico's total war strength may be reckoned at about 100,000 officers and men.

## CONDITIONS OF SERVICE.

In theory, service is compulsory. Actually, it is not so, except, perhaps, for some classes.

It is probable that conscription would be resorted to upon mobilization.

## JAPAN.

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The rapid progress of Japan as a military nation, the secrecy maintained by her concerning reserves, territorial organizations, etc., as well as the system of training Japanese school children in the rudiments of drill and military discipline, make it extremely difficult to make an accurate inventory of the Japanese military resources. This study is then to be regarded as showing the *minimum* forces which Japan has available, for it will confine itself to those forces which are definitely known to be available.

As indicating the constant and rapid progress made by Japan in preparation for war, it may be mentioned that in the period from 1894 to 1904 Japan's fully trained force about doubled. Still more striking is the fact that the trained force which she is able to put into the field to-day is at least double that which she had available at the period of the Russo-Japanese War.

### HIGHER ORGANIZATION.

The division is the highest permanent organization in time of peace. There are, however, 11 generals and 22 lieutenant generals, besides other officers, available for the command and staff of such armies as may be formed in war. There are 19 divisions organized in peace. In addition there are certain special organizations outside the Japanese islands proper. In these special organizations the regiment is the highest unit, except that the Korean troops are organized into an infantry brigade. Including the brigade just referred to, there are 39 brigades, 4 cavalry brigades, and 3 field artillery brigades organized in peace. The normal composition of a division is: Two brigades of infantry, 1 regiment of cavalry, 1 regiment of field artillery, and the necessary auxiliary troops. Brigades of cavalry and of field artillery appear to be assigned to divisions in time of peace. There are also 11 mountain batteries which are apportioned among the divisions in peace.

### INFANTRY.

There are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade. There are 80 regiments, 4 of

which are special troops (already mentioned), with 247 battalions. Seven of the battalions are not assigned to regiments; of these 7 battalions, all except 1 belong to the special troops. The peace strength of regiments is 80 officers and 1,734 men. The total peace strength is 6,547 officers and 142,855 men. It is understood that the mobilization plan upon which Japan is working contemplates the organization of a duplicate for each battalion maintained in peace and also a depot for each regiment. This doubling does not apply to the special troops. It is not believed that these reserve organizations have been completely worked out.

There are 229 battalions in the army proper; assuming that the arrangements for increasing the number of battalions have been completed, mobilization would see 456 battalions and 76 depots, besides 18 special battalions. The special battalions would probably not be available, unless the theater of war were in the territories in which they are stationed.

The number of men per battalion upon mobilization is variously estimated. The maximum of these estimates would give the battalion about 1,000 rifles, while the minimum would give it about 900. In view of what was done in the Russo-Japanese War, it is believed that, notwithstanding the increased number of organizations, the estimate of 1,000 rifles to the battalion on the war footing is about correct.

It would thus appear that Japan can mobilize 456,000 fully trained infantry, in addition to 18,000 special troops and 76,000 in depots.

#### ARTILLERY.

All Japanese artillery officers are on one list. The heavy artillery is partly mobile and partly coast. It is practically impossible to separate the heavy artillery into classes. This study will therefore consider all heavy artillery under one heading.

#### FIELD ARTILLERY.

The German system—6 guns to the battery, 3 batteries to the battalion, 2 battalions to the regiment—is followed.

There are 25 regiments, with 3 separate battalions, giving a total of 161 batteries; 2 of these batteries belong to the special troops. The 3 separate battalions, 11 batteries, are mountain battalions. There are 10 horse artillery batteries.

The peace strength of batteries is 5 officers and about 120 men. The regimental strength is 42 officers and 662 men. The total peace strength is 1,114 officers and 17,804 men. The field artillery on mobilization undergoes a similar expansion to that already noted for

the infantry. The completed project would see 322 batteries of 6 guns each available. This would mobilize 275 six-gun batteries. The war strength of batteries is 5 officers and 154 men each. The strength of light ammunition columns is not definitely known, but is probably identical with that of the Germans—4 officers and 188 men.

#### HEAVY ARTILLERY.

That this branch furnishes heavy field, siege, and coast artillery is definitely known. It is also known that there are in existence 6 regiments, with a total of 36 companies and 24 independent battalions.

Like the field artillery and the infantry, this branch expands in war. Indications point to 126 batteries as the number that would be mobilized under present conditions. The division of these batteries into the several classes can not be given with any assurance. It is believed, as an approximation, that Japan would endeavor to accompany each 1,000 rifles with one heavy field gun; this, of course, is in addition to the field artillery already noted.

#### CAVALRY.

The scarcity of horses in Japan, the great demands on the available supply, and the expense of maintenance of cavalry have combined to retard the development of this arm.

There are 27 regiments with a total of 97 squadrons. The peace footing of squadrons is about 5 officers and 136 men.

The total peace footing is 663 officers and 13,922 men.

In war it is supposed that each regiment would form a reserve regiment of two squadrons and, in addition, a depot squadron. The war strength of squadrons is but slightly greater than that in peace.

The total war strength in sabers, exclusive of reserve organizations, may be reckoned at 14,550.

#### TECHNICAL TROOPS.

There are 19 battalions of engineers of 3 companies each.

The peace strength of battalions is 21 officers and 374 men each.

There is also a "communication brigade," consisting of 1 railway regiment, 1 telegraph section, and 1 balloon section. The peace strength of the engineers proper is 399 officers and 13,490 men.

The peace strength of the railway troops is 75 officers and 2,100 men. The strength of the telegraph section is 38 officers and 625 men. The strength of the balloon section is unknown.

Each battalion of engineers forms an extra battalion in war as well as a depot company. The war strength of battalions is about 660 men.

The total war strength, including railway and telegraph troops, is about 32,862 officers and men.

#### TRAIN.

The train troops are organized into battalions of 2 companies each. On the peace footing there are 19 battalions of 2 companies each; 1 battalion is assigned to each division. The peace footing of battalions is 17 officers and 596 men. The total peace strength of the train is 303 officers and 17,124 men.

The train expands enormously in war; some authorities state that each battalion in war forms an extra company. The war strength of companies is probably 10 officers and 880 men.

The total war footing is not accurately known. Various authorities indicate that the war strength of the train of the 19 divisions existing in peace is about 51,000 officers and men.

#### SANITARY TROOPS.

In 1910 the Japanese Army list shows 1,247 sanitary officers. The present strength in sanitary men is not known. As an indication, it may be noted that in 1906 there were 2,202 men with 1,282 officers. As the strength in officers has not materially changed since 1906, it may be assumed that the present strength in men is about 2,200.

The war strength is unknown.

#### VETERINARIANS.

The army list for 1910 shows 229 officers.

#### REMARKS ON TROOPS.

Besides the troops above mentioned, there are a number of special organizations, schools, gendarmes, etc. The number of officers of intendance borne on the 1910 army list is 999.

#### TOTAL PEACE STRENGTH.

The peace strength is variously estimated. It is certain that it is *at least* 250,000 men, and it is possibly more.

#### TOTAL WAR STRENGTH.

As already indicated, there is some difference of opinion as to the extent to which the ultimate plan of mobilization has been developed. Bringing the existing organizations to the war footing, ignoring spe-



cial troops and reserve organizations, would give a fighting strength of the three arms about as follows:

Infantry rifles.....	228,000
Cavalry sabers.....	14,550
Field guns (with possibly 228 heavy field guns in addition).....	954

If we assume that the plans for mobilization have been completed the above figures for infantry rifles and field guns would be doubled, while the cavalry would be increased by about one-half.

There are at least 1,000,000 *fully trained* reserves subject to call on mobilization.

#### ARMY, 1913.

Japan's active army consists of 19 divisions (2 more authorized). It has 19 reserve divisions. The Japanese general staff in 1906 worked out a plan to increase the then 17 active divisions to 25, with a corresponding number of reserve divisions. This plan was to be completed in 11 years. So far but 2 active divisions and 2 reserve divisions have been added, and the plan has been temporarily halted.

The strength of the army on a peace footing is 15,500 officers, 220,000 men, 45,000 horses.

When mobilized the army will number, approximately, 400,000 rifles, 17,000 sabers, 1,386 pieces of field artillery, 288 pieces of heavy field artillery, 1,000 pieces of heavy siege artillery, 200,000 horses.

If the proposed plans, checked for the time being, are carried out, Japan in 12 years will be able to put in the field 1,500,000 trained men.

#### COMPOSITION OF THE FORCES.

(1) The active army (*Gueneki*); (2) its reserve (*Yobi*); (3) the army of reserves, or second reserve (*Kobi*); (4) the replacement troops, reserves of recruitment (*Hoju*); (5) the national army (*Ko-kurnin*), first and second parts.

#### CONDITIONS OF SERVICE.

Service obligatory upon all males between the ages of 17 and 40. The period of service is regulated as follows:

*Gueneki*.—Three years, save for the infantry where men pass the third year under the status of furlough, and in the train, where the service is but 6 months.

*Yobi*.—Four years and 4 months comprising men coming from *Gueneki*.

*Kobi*.—Ten years comprising men coming from *Yobi*.

*Hoju*.—Twelve years and 4 months comprising men of character very good or good, who are in excess of the needs of *Gueneki*.

*Kokurnin*.—First part, for 2 years and 8 months comprising men coming from Kobi; for 7 years and 8 months, men coming Hoju, who have received a little instruction. Second part, comprising all the men from 17 to 40 years not comprised in the preceding categories.

Per cent of peace strength to total population:

Population.....	52,000,000
Census.....	1912
Peace strength.....	235,500
Per cent.....	0.45
Annual appropriation (1913-1914).....	\$67,775,181

#### ADMINISTRATION.

The Emperor is commander in chief of the army and navy; the determination of their organization and strength depends upon him.

He is assisted by (1) The council called Gensu, or the marshals (and admirals); (2) the superior council of war; (3) the war department; (4) the general staff; (5) the general inspection of military instruction; (6) the inspector general's department, and the imperial headquarters.

#### ARMY COMMANDS. \*

The division is the highest command in peace. Each division except the guard is assigned a district. There are apparently no higher commands formed in peace.

#### THE DIVISION—WAR STRENGTH.

Commanded by a lieutenant general.

Headquarters: General staff, 1 colonel or lieutenant colonel, chief; 1 lieutenant colonel or major, assistant chief; 2 captains, adjutant general's department, 5 officers (1 major, 2 captains, 2 lieutenants): 1 aide de camp; 1 commissioner of gendarmerie; 2 officers for escort duty. There are 30 officers classed as noncombatants, who pertain to the supply and medical departments, etc. Two brigades of infantry, each of 2 regiments; the brigades are commanded by a major general with 2 staff officers; 1 regiment of cavalry of 3 squadrons; 1 regiment of field artillery, of 2 groups each of 3 batteries, each 6 guns: total 36 guns; 1 battalion engineers; 1 pontoon train; 1 telegraph detachment; 2 companies litter bearers; 8 ammunition columns; 4 commissary; 6 field hospitals. Mobile remount herd.

#### TOTAL OF DIVISION.

Combatants, 432 officers, 13,652 men, 11,174 rifles, 36 guns.

Noncombatants, 191 officers, 4,680 men, 4,831 horses, 1,682 vehicles.

Proportion of cavalry and artillery to an infantry division at war strength: For every 1,000 rifles 38 sabers, 3.2 guns.

## THE INFANTRY BRIGADE.

Two regiments, commanded by a major general with 2 staff officers.

*The regiment.*—Headquarters: 1 colonel; 1 captain, adjutant; 1 lieutenant color bearer; 1 sergeant musician; 1 corporal armorer; 1 sergeant nurse; 4 clerks. Three battalions of 4 companies each; 1 machine-gun company. For train, see battalion organization. Total strength, 69 officers. 3,067 men. Fighting strength, 2,791 men.

*The battalion.*—One major; 1 lieutenant, adjutant; 1 accounting officer; 2 surgeons; 1 corporal musician; 1 corporal nurse; 2 clerks for accounting office; 1 artisan armorer; combat train of battalion, consisting of 1 of the 2 horses belonging to the major, 1 horse bearing medical supplies, 18 ammunition horses, 2 horses carrying tools, 1 extra horse; regimental battalion train, consisting of 9 baggage horses, 10 horses carrying kitchen utensils, 16 horses with subsistence supplies, 1 horse with shoeing supplies, 2 extra horses; 4 companies.

*The company.*—War strength: Commanded by a captain not mounted, 3 lieutenants; 1 adjutant (a superior noncommissioned officer, corresponds to a first sergeant); 1 sergeant major; 1 quartermaster sergeant; 8 sergeants; 1 corporal quartermaster; 8 corporals; 10 first-class privates; 162 second-class privates (including 1 shoemaker, 1 tailor, and 4 men). Total, 196. In 1912 the average company had a total strength of 158 on a peace footing.

*The machine-gun company.*—An infantry regiment has a company of 6 guns; one officer; 3 noncommissioned officers; 18 servers; 36 drivers; 24 pack horses (carrying 57,600 cartridges); 6 pack horses carrying guns; 6 horses regimental train; 2 saddle horses. In maneuvers the machine-gun companies have been assembled into "brigades."

## THE CAVALRY BRIGADE.

Outside the divisional cavalry Japan will mobilize 4 independent brigades of cavalry, each brigade consisting of 2 regiments of 4 squadrons each. Total, about 1,160 sabers, with smaller units of different arms of the service.

*The regiment.*—Headquarters: One colonel; 1 major, second in command; 1 captain, adjutant; 1 lieutenant, colorbearer; 2 surgeons; 2 veterinarians; 2 accounting officers; 1 farrier sergeant; 1 corporal saddler; 1 artisan armorer; 4 nurses. A divisional regiment has 3 squadrons; an independent regiment has 4 squadrons. The strength of a 4-squadron regiment is 596 combatants, 146 noncombatants, 782 horses.

*The squadron.*—War strength: One captain; 4 lieutenants; 1 adjutant; 1 sergeant major; 1 quartermaster sergeant; 6 sergeants; 6

corporals (of whom 1 is a farrier); 5 farriers; 1 nurse. Total of squadron, 145 combatants, 31 noncombatants, 184 horses. The squadron is divided into 4 platoons.

## FIELD ARTILLERY.

*The regiment.*—Each regiment has 2 groups of 3 batteries each: each battery has 6 guns. Total guns each regiment, 36.

*The battery.*—War strength: One captain; 4 lieutenants; 1 adjutant; 1 sergeant major; 1 farrier sergeant; 6 sergeants, chiefs of piece; 1 quartermaster corporal; 6 corporals. Total—combatants, 5 officers, 127 men; noncombatants, 18 men, 128 horses, 6 guns, 6 caissons (27 vehicles).

## PROMOTION.

Partly by selection, partly by seniority, with no fixed proportion between the two methods.

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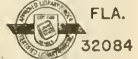






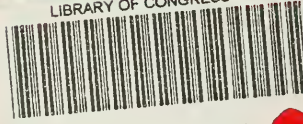
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